NOT TO BE ISSUED
OUT OF THE LIBRARY.

00054604

V
582·1303
Hei/Glo
54604

BOMBAY BRANCH
OF THE
ROYAL ASIATIC SOCIETY
TOWN HALL, BOMBAY.

Digitized with financial assistance from
Hemendra Kothari
on 06 November, 2019

GLOSSARY

OF THE

BOTANIC TERMS

USED IN DESCRIBING

54604
ac.

FLOWERING PLANTS

989

BY

R. L. HEINIG,

IMPERIAL FOREST SERVICE,

INDIA.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

7x-c-83

CALCUTTA:

OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING, INDIA.

1899.

V
582.1303
Hei/Glo
54604
00054604

BOOKS CONSULTED.

Forest Flora of N.-W. and Central India	*Sir D. Brandis.*
Flora of British India	*Sir J. Hooker.*
Flora of British Burma	*Sulpiz Kurz.*
First Book of Indian Botany	*Prof. Oliver.*
Natural History of Plants	*Profs. Kerner and Oliver.*
Structural Botany	*Prof. Asa Gray.*
Manual of Botanic Terms	*M. C. Cooke.*
English Dictionary	*Revd. J. Stormonth.*
Manual of Scientific Terms	*Revd. J. Stormonth.*

GLOSSARY.

A

a an (Gr. without), prefix; syn. (L.) *e. ex.*

a ab abs (L. from, away), prefix.

abaxial abaxile (L. *axis*, an axle-tree), out of the axis, as an embryo out of the axis of the seed; syn. *excentric.*

abbreviated (L. *brevis*, short), less in length, as one part or organ compared to another; cp. *reduced, elongate*: **abbreviation**, part of a word used for the whole, as L. or Linn. for Linnæus; stip. for stipulate.

aberrant (L. *errans*, wandering), differing from the usual character of the related group; cp. *abnormal*: n. **aberration.**

abietic (L. *abies*, the silver fir), relating to the Fir tribe of the Nat. Ord. Coniferæ.

abluent (L. *luo*, I wash), suitable for removing impurities; syn. *abstergent, detergent.*

abnormal (L. *norma*, a rule), differing from the usual form, structure, or mode; syn. *heteroclite, heteromorphous*; cp. *aberrant, anomalous, normal*; see *irregular*:—**dehiscence**, see *dehiscence.*

aboriginal (L. *origo*, origin), growing naturally in a locality from the beginning; native, not introduced; syn. *indigenous*; cp. *exotic.*

abortion (L. *abortio*, a miscarriage), imperfect development or non-development of an organ; syn. *arrest*; cp. *suppression*: **by abortion**, by non-development of some part, as when a 2-or more celled ovary becomes 1-celled by non-development of the ovules in all but one cell; cp. *by solution*: **aborted abortive** *barren, defective*; syn. *obsolete*; cp. *rudimentary*: —**pistil**, *pistillode*: —**stamen**, *staminode.*

abraded (L. *rado*, I scrape), as if roughly rubbed off: n. **abrasion.**

abrupt (L. *rumpo*, I break), terminating suddenly, not tapering: **abruptly pinnate**, pinnate without the terminal leaflet; syn. *paripinnate*: **abruptly deflexed**, turned sharply downward.

absciss-layer (L. *abscissum*, cut off), a layer of thin-walled cells formed at the insertion of a leaf just prior to its natural separation from the stem (dis-articulation); syn. *separation-layer*: n. **abscission.**

abstergent (L. *tergeo*, I clean), having a cleansing property; syn. *abluent, detergent.*

acanthous acanthine acanthaceous (Gr. *akantha*, a spine), armed with spines; syn. *spinous*; cp. *aculeate*: **acanthocladous** (Gr. *klados*, a branch), with spiny branches: **acanthophorous** (Gr. *phoreo*, I bear), spine-bearing.

acaulous acauline acaulescent (Gr. *kaulos*, a stem), stemless: **acaulosia**, non-development of the stem.

accessory (L. *accessus*, an approach to), additional:—**buds**, multiplications of the axillary bud either superposed or collateral:—**fruit**, that of which some portion, not the pistil nor organically united with it except by common insertion, resembles the fruit; syn. *anthocarp, pseudo-carp*: —**species**, those next in importance to the principal species.

accrescent (L. *ad*, to; *cresco*, I grow), said of parts of the calyx or corolla that persist and increase in size after flowering, as in Dipterocarpeæ; syn. *increasing*: **accrete**, grown together; syn. *concrete*: **accretion**, an external addition.

accumbent (L. *ad*, to; *cubo*, I lie down), lying against another body; syn. *accument*: —**cotyledons**, those with their edges along the radicle; cp. *incumbent, pleurorhizal.*

accument, *accumbent.*

acephalous (Gr. *a,* without; *kephale,* the head), headless, as an ovary with lateral style.

aceraceous (L. *acer,* a maple tree), relating to the Maple tribe of the Nat. Ord. Sapindaceæ.

acerose acerous (L. *acer,* sharp), needle-shaped like the leaves of Pines; cp. *acicular, filiform.*

acervulus pl. **-i** (L. dim. of *acervus,* a heap), a small heap or cluster: adj. **acervulous**; cp. *coacerrate, grumous.*

acetabulose acetabulous (L. *acetabulum,* a cup-shaped vinegar cruet), with cup-like discs: **acetabuliform** (L. *forma,* shape), in the form of a saucer or shallow cup; see *cup-shaped.*

acetarious (L. *acetum,* vinegar), used for salads: **acetary,** the acid pulp of certain fruits.

achænium, see *achene.*

achasmophyte (Gr. *a,* without; *chasma,* an opening), a plant with indehiscent fruit.

acheilary (Gr. *cheilos,* the lip), having the labellum undeveloped in an orchid.

achene achenium achænium (Gr. *a,* not; *chaino,* I open), a small dry indehiscent 1-celled 1-seeded fruit, or carpel if the fruit be apocarpous; syn. *amphispermium, pseudospermium, spermidium, xylodium*; cp. *caryopsis, coccus, cypsela, nut, pyrene, samara, utricle*: **achænocarp** (Gr. *karpos,* fruit), general name for a dry 1-seeded fruit; syn. *nut*; cp. *regmacarp*: **achænodium** (Gr. *duo,* I put on), a double achene; cp. *cremocarp, triachenium.*

achlamydeous (Gr. *chlamus,* a garment), without perianth.

achromatic (Gr. *chroma,* colour), colourless.

acicula (L. dim. of *acus,* a needle), a bristle; cp. *seta*: **acicular aciculate,** slender, needle-shaped; cp. *acerose, filiform.*

acidote (Gr. *akis,* a spear point), terminating in a hard point; cp. *mucronate, cuspidate.*

acidulate (L. *acidus,* sharp to the taste), somewhat acid.

acinaciform (L. *acinaces,* a Persian sword), curved like a scymetar with rounded point and thinner on the convex than on the straighter edge; cp. *ancipital, ensiform, gladiate, cultrate.*

acinose acinaceous (L. *acinus,* a berry), like grapes or grape-seed; granulated: **acinus,** a berry or collection of berries; the separate carpels of a baccate fruit, as in Rubus, or the contained stone or seed; see *berry.*

acorn (AS. *æcern*), a nut enclosed within, or in the axil of, thickened bracts forming a cupule; the characteristic fruit of Cupuliferæ; syn. *glans.*

acotyledonous (Gr. *kotuledon,* a seed-lobe), without seed-leaves, as in Cryptogamia.

acramphibrya (Gr. *akros,* the summit; *amphi,* both; *bruo,* I bud), plants that produce lateral as well as terminal buds; cp. *acrobrya.*

acrid (L. *acer,* sharp to the taste), pungent, corrosive.

acro- (Gr. *akros,* the summit), prefix.

acrobrya (Gr. *bruo,* I bud), see *acrogen*; cp. *acramphibrya.*

acrocarpous (Gr. *karpos,* fruit), with the fructification terminating the summit.

acrogen (Gr. *gennao,* I produce), growing from the apex or by terminal buds only, as in tree-ferns; syn. *acrobrya*: adj. **acrogenous.**

acronychious (Gr. *onux,* a claw), said of an organ having the summit curved like a claw; cp. *aduncate, unguiculate.*

acropetal (L. *peto,* I seek), developing from base to apex, as in botryose inflorescence; syn. *centripetal*; cp. *basipetal.*

acrospira acrospire (Gr. *speira,* a spiral line), plumule of a grain in germination.

actinenchyma (Gr. *aktin,* a ray; *engchuma,* tissue), star-shaped cellular tissue.

actinocarpous (Gr. *karpos,* fruit), with radiating placentas.

actinomorphous (Gr. *morphe,* shape), divisible into similar halves by two or more planes: syn. *polysymmetrical*; cp. *zygomorphous.*

actinophyllous (Gr. *phullon,* a leaf), ray-leaved; see *digitate.*

aculeate aculeose (L. *acus,* a needle, dim. *aculeus*), abounding with prickles; cp. *acanthous*: **aculeus,** a small pointed excrescence of the bark.

acumen acumination (L. *acumen*), a sharp point; cp. *arista, cusp, mucro*: **acuminate,** tapering to a point; cp. *apiculate, acute, attenuate*: dim. **acuminulate.**

acute (L. *acutus*, pointed; from *acuo*, I sharpen), ending in an acute angle: **acutiusculous**, somewhat acute.

ad (L. to), prefix.

adelphous (Gr. *adelphos*, a brother), united, as stamens by their filaments into a tube, column, or one or more phalanges; see *monadelphous*.

adenose (Gr. *aden*, a gland), gland-like: **adenantherous** (Gr. *antheros*, blooming), having gland-bearing anthers: **adenophorous** (Gr. *phoreo*, I bear) gland-bearing: **adenophyllous** (Gr. *phullon*, a leaf), with gland-bearing leaves.

adesmy (Gr. *a*, not; *desmos*, a bond), division of an organ usually entire; cp. *antholysis*, *chorisis*.

adglutinate (L. *glutino*, I glue together), consolidated with some contiguous body; cp. *accrete*, *adnascent*.

adherent (L. *hæreo*, I stick), said of dissimilar parts when united but separable without laceration; cp. *coherent*, *semi-adherent*, *adnate*: **adhesion**, the union of dissimilar parts or organs; syn. *adnation*; cp. *cohesion*.

adligant, see *alligant*.

adnascent (L. *nascens*, being born), growing attached to or upon a parent body, as suckers, young bulbs, etc., ; cp. *accrete*, *adglutinate*.

adnate (L. *natus*, born), said of dissimilar parts or organs when congenitally united, as the ovary to the calyx-tube; cp. *connate*, *adherent*: n. **adnation**; syn. *adhesion*: **adnate anther**, one attached by its whole length to the upper portion of the filament and opening inwards or outwards, rarely laterally; cp. *innate*.

adpressed (L. *pressus*, a pressing), lying close against throughout the whole length, as cotyledons face to face, or hairs lying along the producing surface; cp. *strigose*.

adult (L. *adultus*, grown up), mature.

aduncate aduncous (L. *aduncus*, crooked), hooked; syn. *hamate*, *uncinate*; cp. *acronychious*.

adventitious (L. *adventicius*, extraordinary, from *advenio*, to happen), in an unusual position: —**buds**, those produced irregularly from any part of the stem, leaves, or roots; —**roots**, those produced otherwise than by direct prolongation of the radicle of the embryo; cp. *ærial*.

adverse (L. *verto*, I turn), facing, opposite to; cp. *averse*: —**raphe**, one facing the placental axis; syn. *ventral*; cp. *dorsal*.

æquilateral (L. *æquus*, equal; *latus*, a side), equal-sided.

ærial (L. *ær*, air), said of adventitious roots produced in the open air: **ærophyte** (Gr. *phaton*, a plant), a plant deriving nourishment from the air alone and with roots unconnected with the soil; syn. *air-plant*, *epiphyte*; cp. *lithophyte*.

æruginose aeruginous (L. *ærugo*, verdigris), verdigris-green.

æstival (L. *æstas*, summer), pertaining to or produced in summer; cp. *hiemal*, *vernal*: **æstivation**, the mode in which the parts of the flower are folded in the bud; syn. *præfloration*; cp. *vernation*.

æterio (Gr. *etairia*, society), a collection of aggregate drupelets, as in Rubus; syn. *conocarp*, *drupetum*.

affinity (L. *affinis*, neighbouring), near relationship, close resemblance of the more important organs; cp. *analogy*.

agamic agamous (Gr. *a*, without; *gamos*, marriage), without visible organs of reproduction; syn. *cryptogamous*: n. **Agamia**: **agamo-genesis** (Gr. *gennao*, I produce), power of non-sexual reproduction; cp. *parthenogenesis*, *apogamy*.

agglomerate (L. *glomero*, I form into a mass), clustered or closely crowded but not cohering; syn. *aggregate*, *coarctate*; cp. *coacervate*, *glomerate*, *stipate*.

aggregate (L. *grex*, a flock), see *agglomerate*; cp *segregate*: —**fruit**, one consisting of a cluster of ripe carpels (berries, drupes or follicles) belonging to one flower, as in raspberry; cp. *collective fruit*; see *symphoricarpous*.

agrarian agrestis (L. *ager*, a field), growing wild in fields; cp. *arvensis*, *campestris*, *pratensis*, *segetalis*.

aigret (Fr. *aigrette*, a small white heron), the feathery down of the thistle; see *pappus*.

air-cells, cavities in the cellular tissue of plants.

air-plant, see *ærophyte*.

akene, see *achene*.

alabastrum (L. a rose-bud), a flower-bud; cp. *gemma*.

alæ (L. pl. of *ala*, a wing), the side petals of a papilionaceous corolla (syn. *talaria*); the combined pair of lateral petals in Impatiens: **alate**, winged; cp. *cristate*;

see *ptero-* : **alate-pinnate,** pinnate with winged petiole : **alæform alary** (L. *forma,* shape), wing-like : **alar,** in the axil ; syn. *axillary.*

albescent albicant (L. *albico,* I make white), pale in colour, whitish, hoary ; cp. *canescent, dealbate, etiolated, pruinose* : **albefaction** (L. *albus,* white ; *facio,* I make), making or becoming white : **albido-,** whitish, as **albido-tomentose.**

albinism (L. *albus,* dead white), a pale condition due to the absence of chlorophyll ; cp. *etiolation.*

albumen (L. *albus,* white), the nutritive material within the seed-coats of some seeds outside of the embryo ; see *endosperm, perisperm* : **albuminous,** containing albumen ; cp. *exalbuminous.*

alburnum (L. *albus,* white), the new or recently-formed wood of exogens between the heart-wood and the bark ; syn. *sapwood* ; cp. *duramen.*

alexipharmic (Gr. *alexo,* I keep off ; *pharmakon,* poison), antidotal ; syn. **alexiteric** (Gr. *deleterion,* poison).

allagostemonous (Gr. *allos,* different ; *stemon,* the warp of a loom), having the stamens alternately on the torus and on the petals.

allantoid (Gr. *allas,* a sausage ; *eidos,* likeness), shaped like a sausage ; syn. *botuliform.*

alliaceous (L. *allium,* garlic), having the odour of garlic ; belonging to the genus Allium (Nat. Ord. Liliaceæ).

alliance, *see cohort.*

alligant (L. *alligo,* I bind to), clinging to, a term applied to certain roots.

allochrous (Gr. *allos,* different ; *chroa,* colour), changing from one colour to another ; cp. *isochrous.*

llogamy (Gr. *allos,* different ; *gamos,* marriage), fecundation of a flower by the pollen of another flower ; syn. *cross-fertilisation* ; see *geitonogamy, xenogamy* ; cp. *autogamy, cleistogamy* : adj. **allogamous.**

alpine (L. *alpes,* the Alps), belonging to lofty mountain regions ; about 12,000 feet and above in the tropics ; about 5000 feet and above in the temperate zones : **alpestrine,** *sub-alpine.*

alsinaceous (Gr. *alsis,* a leaping ; *alsine,* chickweed), with distinct intervals between the petals of a polypetalous corolla ; belonging to the Chickweed tribe, Alsineæ, Nat. Ord. Caryophylleæ.

alterative (L. *alter,* other), a medicine for improving the condition of the blood and tissues by altering it without sensible evacuation.

alternate (L. *alternus*), one after the other : —**leaves,** those placed singly on the stem, one at each node ; cp. *scattered, opposite* : —**stamens,** those inserted between the petals or corolla-lobes : **alternative** (in phyllotaxy) when the parts of an outer whorl alternate with those of the inner succeeding whorl, as in most flowers : **alterni-pinnate,** compound with the leaflets or pinnæ alternate on the rachis of the leaf.

alveolar alveolate (L. *alveus,* an excavation ; dim. *alveolus*), honeycombed ; with deep angular cavities separated by thin walls ; syn. *faveolate* ; cp. *cavernous, fenestrate.*

amabilis (L. lovable), beautiful.

amarantous (Gr. *a,* not ; *maraino,* I wither), unfading : **amaranthaceous,** belonging to or resembling the Amaranth family, Amarantaceæ.

amarus (L.), bitter.

amber (Arab.), fossil gum : **amber-coloured,** *succineous.*

ambient (L. *ambio,* I go round), surrounding.

ambitus (L. a circuit), the ray or circumference of a capitulum or flower-head.

ambrosial ambrosiacous (L. *ambrosia,* the food of the gods), very fragrant ; pleasant to the taste ; cp. *aromatic.*

ament amentum (L. a leathern thong), a deciduous, usually pendulous, spike of unisexual flowers ; syn. *catkin, nucamentum* : **amentaceous,** bearing catkins ; catkin-like ; belonging to the Nat. Ord. Amentaceæ ; syn. *julaceous* ; cp. *nucamentous.*

amethystine (Gr. *amethustos*), violet-blue ; syn. *ianthine, violaceous.*

ammophilous (Gr. *ammos,* sand ; *phileo,* I love), growing in sandy places, as the sea-shore ; syn. *arenareous* ; cp. *glareose, sabulose.*

amnios (Gr. *amnion,* a fœtal membrane), fluid of the rudimentary embryo-sac ; cp. *chorion* : adj. **amniotic** : —**sac,** *embryo-sac, vitellus.*

amorphous (Gr. *morphe,* shape), without regular structure or definite form.

amph- amphi-(Gr. both ; on both sides), prefix.

amphanthium (Gr. *anthos*, a flower), a dilated receptacle bearing a head of flowers, as in Compositæ ; syn. *anthoclinium, clin-* and *phor-anthium*.

amphibious (Gr. *bios*, life), growing both in water and on land.

amphibrya (Gr. *bruon*, I bud), a name for monocotyledons.

amphicarpous (Gr. *karpos*, fruit), producing two different kinds of fruit.

amphicœlous (Gr. *koilos*, hollow), concave on both sides ; cp. *lenticular, triquetrous*.

amphisarca (Gr. *sarx*, flesh), a fruit pulpy within and with a hard or crustaceous rind like the gourd, pomegranate, etc. ; see *pepo, balausta* ; adj. **amphisarcous**.

amphispermium (Gr. *sperma*, a seed), a one-celled one-seeded indehiscent fruit with the pericarp conformed to the seed ; syn. *achene, pseudospermium* ; cp. *caryopsis*.

amphitropous (Gr. *tropé*, a turning), said of an ovule with hilum intermediate between chalaza and foramen, as in Primulaceæ ; syn. *heterotropous, semi-* or *hemianatropous, hemitropous, half-inverted*.

amphora (Gr. *amphi*, on both sides ; *phero* or *phorein*, I bear : L. a two-handed vase), the lower part of a pyxis, or capsule opening transversely by an operculum or lid : **amphoric**, vase-shaped ; cp. *ascidiform, ampullaceous*.

ample (L. *amplus*), large, abundant ; cp. *scanty* : **ampliate**, enlarged, dilated.

amplexous (L. *amplector*, I embrace), clasping ; cp. *complexive, equitant* : **amplexicaul** (L. *caulis*, a stem), clasping the stem horizontally, as the base of certain sessile leaves ; see *pericladium*.

ampulla (L. a flask swollen in the middle), a flask-shaped or bladder-like organ ; cp. *utricle* ; **ampullaceous**, bottle-shaped ; cp. *arytenoid, amphoric, gibbous, lageniform, saccate, ventricose, vasculiform*.

amygdaloid (Gr. *amugdalon*, almond ; *eidos*, like), almond-like in shape.

amylaceous (Gr. *amylum*, starch), starchy, starch-like : **amyline**, the insoluble part of starch : **amyloid** (Gr. *eidos*, likeness), analogous to starch : **amylum**, starch-granules.

anacathartic (Gr. *ana*, upward ; *katharsis*, a discharge), inducing discharges by the mouth or nose.

anæsthetic (Gr. *ana*, without ; *aisthesis* sensation), a substance having the power when taken of causing loss of feeling or sensation, as opium, chloroform, etc. ; cp. *anodyne, opiate*.

analogous (Gr. *ana*, similar to ; *logos*, proportion), having similarity of function but not identity of parts ; cp. *homologous* : **analogy**, likeness in certain respects only, not in plan of structure ; cp. *affinity*.

anandrous (Gr. *aner*, gen. *andros*, a male), without stamens.

anantherous (Gr. *antheros*, blooming), without anthers ; syn. *castrate*.

ananthous (Gr. *anthos*, a flower), flowerless.

anasarca (Gr. *ana*, through ; *sarx*, flesh), excess of fluid, a plant-disease analogous to dropsy.

anastomosis (Gr. *ana*, through ; *stoma*, a mouth), union of the ramifications of the veins of a leaf forming reticulation : v. to **anastomose** : adj. **anastomosing** ; syn. *inosculating*.

anatomy (Gr. *ana*, up ; *tomé*, a cutting), the intimate structure of plants ; see *histology*.

anatropous (Gr. *ana*, over ; *trepo*, I turn), said of an ovule with foramen next the hilum and the chalaza at the apex ; syn. *inverted* ; cp. *amphi-, campylo-*, and *ortho-tropous*.

anbury (AS. *ampre*, a swollen vein), a diseased wart-like swelling on the roots of some esculents ; cp. *gall, exostosis*.

anceps ancipital (L. *am*, on both sides ; *caput*, the head), two-edged and flattened ; cp. *acinaciform, etc.*

andro-dicœcious (Gr. *aner*, a male ; *dis*, twice ; *oikos*, a house), with hermaphrodite flowers on one plant and male flowers on another plant of the species ; cp. *polygamous, gyno-dicœcious*.

androecium (Gr. *aner*, a male ; *oikos*, a house), the male organs of a flower collectively ; cp. *gynœcium*.

androgynous (Gr. *aner*, a male ; *gunê*, a female), said of an inflorescence when it bears both male and female flowers, and of a flower when perfect, or hermaphrodite : **androgynism**, change from a dicœcious to a monœcious condition : **androgynarious**, with stamens and pistil transformed to petals in a double flower ; cp. *andropetalarius*.

androphore (Gr. *aner*, a male ; *phorein*, I bear), the tube or column on which

some stamens are supported ; cp. *gynophore, anthophore, gonophore.*

andropogon (Gr. *aner,* a male ; *pogon,* a beard), with bearded stamens.

anemophilous (Gr. *anemos,* the wind ; *philos,* loved), said of flowers ordinarily fertilised by wind-borne pollen ; cp. *ento-* and *ornitho-philous.*

anfractuose (L. *anfractus,* a turning), wavy or sinuous, like the anthers of the Gourd family ; cp. *colubrine, contorted, tortuous, gyrose.*

angienchyma (Gr. *angeion,* a vessel ; *engchuma,* an infusion), see *prosenchyma.*

angiocarpous (Gr. *angeion,* a vessel ; *karpos,* fruit), said of a fruit enclosed in an envelope or cupule.

angiospermous (Gr. *angeion,* a vessel ; *sperma,* a seed), with ovule enclosed in an ovary, the seed in a seed-vessel ; cp. *gymnospermous, indutive* : **angiospermæ,** a sub-phylum comprising the two classes Dicotyledonæ and Monocotyledonæ in the Natural System of plants.

angled (L. *angulus,* a corner), a term used freely for stems, sometimes for fruits, less often for seeds broadly angular in section ; said of leaves with broadly angled margins ; cp.—*gonous,—quetrous* : **angular divergence,** the angular distance between the axes of two alternate leaves on the stem, expressed in degrees, as 180°, 120°, 144°, or fractions, as $\frac{1}{2}$, $\frac{1}{3}$, $\frac{2}{5}$, etc., the denominator being the number of vertical ranks, the numerator or upper figure the number of revolutions required to add one leaf to each rank ; see *cycle.*

anguilliform (L. *anguilla,* an eel ; *forma,* shape), eel-shaped.

anisate (L. *anisum*), having the odour of anise.

aniso- (Gr. *anisos,* unequal), prefix.

anisomerous (Gr. *meros,* a part), unsymmetrical ; said of a flower when the parts of the whorls including (or sometimes excluding) the carpels are unequal in number ; syn. *heteromerous* ; cp. *isomerous, symmetrical.*

anisopetalous (Gr. *petalon,* a petal), with unequal petals ; syn. *irregular.*

anisophyllous (Gr. *phullon,* a leaf), having the leaves of a pair unequal ; having the leaves of a pair similar but differing from those above and below : n. **anisophylly.**

anisostemonous (Gr. *stemon,* the warp of a loom), with stamens not equal in number to the petals nor a multiple of them ; cp. *isostemonous.*

annatto family, Bixineæ.

annotinous (L. *annotinus,* a year old ; from *annus,* a year), one year old ; of distinct yearly growth ; see *scion.*

annual (L. *annuus,* lasting for a year), lasting for one year only ; cp. *biennial, perennial* : **annual ring,** a cylindrical zone of wood formed in one year or during one period of growth from the cambium by dicotyledons and conifers.

annulus (L.), a ring ; syn. *gyroma* : **annular annulate annulose,** having the form of a ring (syn. *cricoid*) ; marked transversely by rings ; cp. *armillate, cinctured, torulose.*

anodyne (Gr. *an,* without ; *oduné,* pain), used for relieving pain ; syn. *antalgic* ; cp. *anæsthetic.*

anomalous (Gr. *a,* not ; *homalos,* similar), contrary to rule ; cp. *abnormal.*

antalgic (Gr. *anti,* against ; *algos,* pain), see *anodyne.*

antarctic (Gr. *anti,* opposite ; *arktos,* the constellation of the bear), the zone or region extending from 23½° S. lat. to the south pole ; cp. *arctic.*

anteposition (L. *ante,* before ; *pono,* I place), the insertion opposite to each other (opposition) of parts of successive whorls which normally alternate, as stamens opposite to petals ; syn. *superposition.*

anterior (L.), before ; said of that portion of an axillary or lateral flower that faces outwards from the axis of inflorescence ; syn. *inferior, lower* ; cp. *posterior* : **anteroposterior,** in the plane containing the anterior and posterior parts and the axis of inflorescence, *i.e.,* in the plane of bract and axis ; syn. *medial* ; cp. *lateral.*

anthela (Gr. *anthélé,* a little blossom), a paniculate cyme with lateral axes strongly developed in the same plane as the relatively main axis, as in Juncaceæ ; a form of *drepanium* or *rhipidium.*

anthelmintic (Gr. *anti,* against ; *elmins,* a tape-worm), suitable for expelling worms from the intestines ; syn. *vermifuge.*

anthemia anthemy (Gr. *anthos,* a flower), a flower-cluster.

anther (Gr. *antheros,* blooming), that part of a stamen that bears the pollen ; syn. *testiculus* : **—sac,** see *theca* :

antheridium pl. **ia**, that which is analogous to the anther in Cryptogamia"; syn. *pollinodium*: **antheriferous** (L. *fero*, I bear), bearing anthers.

anthesis (Gr. bloom), the opening of a flower; the time of full bloom or maturity; syn. *efflorescence*.

antho- (Gr. *anthos*, a flower), prefix.

anthocarpous (Gr. *karpos*, fruit), when the fruit, simple, multiple or aggregate, has some conspicuous portion which is not the pistil nor organically united with it, as in Mirabilis, Strawberry and Pine-apple; syn. *pseudocarpous*: n. **anthocarp**, syn. *accessory fruit*; cp. *scleranthium*.

anthoclinium (Gr. *kliné*, a bed), see *amphanthium*.

anthocyanin (Gr. *kuanos*, dark blue), a purple sap-pigment in leaves and flowers.

anthodium (Gr. *duo*, I put on), the characteristic flower-head of Compositæ with disc and ray florets on an expanded receptacle (anthoclinium); syn. *calathidium*, *cephalanthium*; cp. *capitulum*.

antholysis (Gr. *lusis*, a loosening), the separation of normally united parts of a flower with reversion to a foliaceous condition; cp. *adesmy*, *chloranthy*.

anthophore (Gr. *phorein*, I bear), an internode of the receptacle developed between the calyx and the corolla; cp. *gonophore*, *gynophore*.

anthophyte (Gr. *phuton*, a plant), a name for Cryptogams.

anthotaxis **anthotaxy** (Gr. *taxos*, order), the arrangement of flowers on the axis of inflorescence; cp. *phyllotaxis*.

anthoxanthin (Gr. *xanthos*, yellow), the yellow sap-pigment in leaves and flowers.

anti- (Gr. opposite, against), prefix.

anticous (L. *anticus*, in front), said of an anther turned towards the axis of the flower; syn. *introrse*; cp. *posticous*.

antidysenteric (Gr. *dusenteria*, a flux; from *dus*, badly; *entera*, the bowels), a remedy for dysentery.

antipetalous (Gr. *petalon*, a petal), placed opposite the petals; syn. *oppositipetalous*; cp. *opposite*, *alternate* (as applied to stamens), and *parapetalous*.

antipodal (Gr. *podes*, feet; pl. of *pous*), a term applied to the group of 3 cells at the chalaza end of the embryo sac in Angiospermæ.

antiscorbutic (L. *scorbutus*, scurvy), used as a preventive of scurvy.

antisepalous (Gr. *sepalon*, a sepal), placed opposite the sepals; syn. *oppositisepalous*; cp. *parapetalous*.

antiseptic (Gr. *septos*, putrid), used to prevent putrefaction; cp. *disinfectant*.

antispasmodic (Gr. *spasmos*, a convulsion), used to allay spasmodic pain.

antitropous (Gr. *tropé*, a turning), turned directly away from the hilum, as the radicle in all orthotropous seeds; syn. *superior*, *ascending* (as applied to the radicle); cp. *inferior*, *vague*.

antrorse (L. *ante*, before; *versus*, turned), directed upward and forward toward the summit of some part.

aperient (L. *aperiens*, opening), having an opening action on the bowels; syn. *laxative*, *purgative*.

aperispermic (Gr. *a*, without; *peri*, around; *sperma*, seed), without albumen; syn. *exalbuminous*.

apetalous (Gr. *a*, without; *petalon*, a petal), without petals; cp. *monochlamydeous*: **Apetalæ**, a term for Dicotyledons without corolla.

apex pl. **apices** (L.), the summit of any part; syn. *vertex*: —**of an anther**, that part where the two cells are nearest: —**of the nucleus**, that part of an ovule that points to the aperture in the coats: —**of a leaf**, that part furthest away from the insertion of the blade; cp. *base*: **apical**, relating to the apex: **apiculus**, a short pointed tip; an appendage, sessile or stalked, on the top of an organ: **apiculate**, minutely acuminate; syn. *pointletted*; cp. *acuminate*, *acute*.

aphrodisiac (Gr. *aphrodisios*, pertaining to Aphrodité, the goddess of love), exciting sexual desires.

aphyllous (Gr. *phullon*, a leaf), leafless.

apical **apiculate**, see under *apex*.

apillary **apilous** (Gr. *pilos*, a cap), with the upper lip of a bilabiate flower suppressed; syn. *epileate*.

aplostemonous (Gr. *aploos*, single; *stemon*, the warp of a loom), with a single whorl of stamens; cp. *diplostemonous*.

apo- (Gr. away, apart from), prefix.

apocarpous (Gr. *karpos*, fruit), with the carpels separate from each other; cp. *syncarpous*.

apogamy (Gr. *gamos*, marriage), prolification by bulblets in phanerogamic plants; cp. *apospory*, *agamo-*, *partheno-genesis*.

apopetalous, see *polypetalous*.

apophyllous (Gr. *phullon*, a leaf), with the leaves of the perianth separate; syn. *polyphyllous*; cp. *symphyllous*.

apophysis (Gr. *phuo*, I grow), an irregular swelling on the surface of an organ; adj. **apophysate**; cp. *umbonate*.

apospory (Gr. *spora*, a seed), prolification by bulblets in vascular Cryptogams; cp. *apogamy*.

apostasis (Gr. *stasis*, a standing), the separation of whorls by the development of internodes.

apotropous (Gr. *tropé*, a turning), said of an anatropous ovule which when erect or ascending has raphe adverse to or facing the placental axis, and when pendulous has raphe averse or turned away from it; cp. *epitropous, heterotropous*.

appendage (L. *ad*, to; *pendeo*, I hang), a superadded part; dim. **appendiculus**: adj. **appendiculate**; cp. *naked*.

applanate (L. *ad*, to; *planus*, flat), flattened from above; horizontally expanded; syn. *depressed*; cp. *compressed, complanate, explanate, ancipital*.

apposite (L. *ad*, to; *pono*, I place), with similar parts placed side by side: **appositional**, said of two stems or branches that meet and unite; cp. *approximate*.

appressed, see *adpressed*.

approximate (L. *ad*, to; *proximus*, the next), close to but not uniting with; cp. *appositional*.

apricous (L. *apricus*, sunny), growing in dry sunny places.

apterous (Gr. *a*, without; *pteron*, a wing), wingless.

aquatic (L. *aqua*, water), living in or under water, syn. *hydrophytic*; cp. *fluminal, fluviatile, halophytic, lacustrine, paludose, submerged, uliginose*.

arachnoid (Gr. *arachné*, a spider; *eidos*, likeness), composed of slender tangled hairs or downy fibres like a cobweb; syn. *arenose, cortinate*; cp. *byssoid, histioid, reticulate*.

arboreous (L. *arbor*, a tree), resembling or relating to a tree: **arborescent**, tree-like; growing to the size of a tree or nearly so: **arboretum**, a collection of trees and shrubs under cultivation; cp. *shrubbery*.

arbuscle (L. *arbuscula*, a dwarf tree), a tree-like shrub: **arbuscular**, branched like a small tree; cp. *fruticose*.

archisperm (Gr. *archos*, chief; *sperma*, seed), a term for *gymnosperm*.

arch-veined (L. *arcus*, a bow), with the veins of a leaf curved near the margin: **arched**, *fornicate*: **arcuate**, bent like a bow; somewhat curved; cp. *acinaciform, crescentic, lunate*.

arctic (Gr. *arktos*, a bear), the zone extending from 23½° N. lat. to the north pole; cp. *antarctic*.

arcuate (L. *arcus*, a bow), shaped like a bow.

ardent (L. *ardeo*, I glow), as if burnished; cp. *lævigate*.

ardisia family, *Myrsineæ*,

arefaction (L. *arefacio*, I make dry), the state of becoming dry; syn. *dessication*: v. **to arefy**: **arefied**, dried.

arenarious (L. *arena*, sand), growing in sandy places; syn. *sabulose*; cp. *glareose, ammophilous*: **arenaceous**, consisting of sand; sandy.

arenose areneous (L. *aranea*, a spider), cobwebby; syn. *arachnoid*, q. v.

areola (L. a little open space), a small space bounded by an outline, as the spaces formed by the reticulation of a leaf: **areolate areolated**, divided into small spaces by intersecting lines; cp. *halonate*.

argentate argenteous (L. *argentum*, silver), silvery; shining greyish white; cp. *lucid*.

argillaceous argillose (L. *argilla*, white clay), abounding in or consisting of clay; cp. *arenaceous, calcareous, cretaceous, gypseous*.

argophyllous (Gr. *argos*, pure white; *phullon*, a leaf), white-leaved; cp. *etiolated*.

argute (L. *argutus*, sharp), serrated with sharp teeth; see *serrate*.

argyrophyllous (Gr. *arguros*, silver; *phullon*, a leaf), silvery-leaved.

arhizal (Gr. *a*, without; *rhiza*, a root), rootless.

arid (L. *aridus*), dry: n. **aridity**; cp. *arefaction*.

arietinous (L. *aries*, a ram), like a ram's head.

aril (L. *arillus*, a wrapper), an accessory seed-covering or coat produced during the development of the ovule after fertilisation, and proceeding from the placenta at or just below the hilum or from the funicle; cp. *strophiole, caruncle*: adj. **arillate**; cp. *exarillate*: **arillode**, a false aril proceeding from the micropyle or raphe: **arilloid** (Gr. *eidos*, likeness),

arilliform (L. *forma*, shape), like an aril.

arista (L. a beard of corn), an awn, beard or bristle sometimes proceeding from the glumes of grasses; cp. *seta*, *acumen*: adj. **aristate**; dim. **aristulate**; cp. *awned*, *cristate*.

armed (L. *arma*, weapons), provided with spines, prickles, or other defensive appendages; see *ferox*: n. **armature**.

armillate (L. *armilla*, a hoop), consisting of rings or circles: **armillary**, like a bracelet; cp. *annulate*.

aromatic (Gr. *aroma*, a fragrant principle of plants), having a spicy fragrance; cp. *ambrosial*, *olens*.

arrect (L. *ad*, to; *rectus*, upright), brought into an upright position; cp. *assurgent*, *porrect*.

arrest (L. *ad*, to; *resto*, I stop), partial development; syn. *abortion*, *suppression*.

arrow-shaped, *sagittate*.

arthrophyllous (Gr. *arthron*, a joint; *phullon*, a leaf), with jointed leaf-blades.

articulate articulated (L. *articulus*, dim. of *artus*, a joint), jointed: **articulation**, a joint, as between leaf-petiole and stem where distinct separation takes place; see *absciss-layer*: **article**, a piece separating by an articulation.

artificial (L. *ars*, an art; *facio*, I make) formed by art; opposed to *natural*: —**system**, see *sexual system*.

arum family, Aroideæ.

arundinaceous (L. *arundo*, a reed), resembling or having the structure of reeds: **arundineous arundinose**, full of reeds.

arvensis (L. *arvum*, a ploughed field), growing in ploughed fields or cultivated ground; cp. *agrestis*, *hortensis*.

arytenoid (Gr. *arutaina*, a pitcher; *eidos*, form), like the mouth of a pitcher; pitcher-shaped; syn. *ascidiform*, *vasculiform*; cp. *ampullaceous*.

ascending (L. *ad*, to; *scando*, I climb), rising or directed obliquely upward; syn. *assurgent*; cp. *arrect*, *decumbent*: —**axis**, the stem as contrasted with the root: —**inflorescence**, see *botryose*: —**radicle**, see *superior*; cp. *descending*.

ascidium pl. **-ia** (Gr. *askidion*, a little bag), a pitcher-shaped cavity formed by a modification of the leaf-stalk, as in Nepenthaceæ; syn. *vasculum*; see *dischidia*: **ascidiform** (L. *forma*, shape), pitcher-shaped; syn. *arytenoid*.

asepalous (Gr. *a*, without; *sepalon*, a sepal), without sepals; cp. *monochlamydeous*.

ash-grey, *tephrosious*, *spodochrous*.

aspartic acid (Gr. *asparagos*), that obtained from asparagine, the active principle of asparagus.

aspergilliform (L. *aspergillus*, a sprinkling brush, from *aspergo*, I scatter; *forma*, shape), tufted with many spreading hairs; cp. *cæspitose*, *comose*, *crinite*, *penicillate*, *plumose*.

asperous (L. *asper*, uneven, rough to the touch), rough; syn. *scabrous*; cp. *erinous exasperate*, *scobinate*: dim. **asperulous**.

assimilation (L. *ad*, to; *similis*, like), the conversion of crude material into organised vegetable tissue; fixation by green leaves in sunlight of the carbon and liberation of the oxygen of the carbonic acid drawn from the air; cp. *respiration*.

assurgent (L. *assurgo*, I rise up), rising or curving upward; syn. *ascending*; cp. *arrect*, *decumbent*, *reclinate*.

asteriate asteroid (Gr. *aster*, a star; *eidos*, form), star-shaped; syn. *stellate*.

astichous (Gr. *a*, not; *stichos*, a row), not in vertical rows.

astomous astomatous (Gr. *a*, without; *stoma*, a mouth), without a mouth or aperture.

astragaloid (Gr. *astragalos*, a die; *eidos*, form), dice-shaped.

astringent (L. *ad*, to; *stringo*, I bind), having a binding or contracting property; cp. *styptic*.

asyngamic (Gr. *a*, not; *sun*, together; *gamos*, marriage), said of plants not flowering at the same time, and so prevented from intercrossing.

atavism (L. *atavus*, an ancestor), ancestral resemblance.

ataxic (Gr. *a*, without; *taxos*, arrangement), irregularly disposed.

at length, ultimately; in course of development.

atractenchyma (Gr. *atraktos*, a spindle; *engchuma*, tissue), spindle-shaped cellular tissue.

atrate atratous (L. *ater*, black), turning black: **atrous**, dead black; cp. *coracine*, *carbonaceous*, *nigricant*, *piceous*, *pullous*: **atro-**, in comp. blackish, as **atro-purpureous**, blackish-purple.

atropic atropous (Gr. *a*, not; *trope*, turning), not turned; said of an ovule when straight, the foramen at the apex; syn. *orthotropous*.

attenuate (L. *ad*, to; *tenuo*, I make thin), narrow and gradually tapering; cp. *acuminate*.

auburn, chestnut-brown; syn. *badius*; cp. *cinnamomeous, spadiceous*.

aucuparious (L. *aucupor*, I catch birds), attracting birds; cp. *aviculary*.

augmented (L. *augeo*, I increase), increased beyond the usual number: n. **augmentation**; syn. *multiplication*.

aulacocarpous (Gr. *aulax*, a furrow; *karpos*, fruit), with furrowed fruit; see *sulcate*.

aurantiaceous (L. *aurantium*, the orange), orange-yellow; belonging to the rue and orange family (Rutaceæ).

aurate aureous (L. *aurum*, gold), yellow with golden lustre; syn. *chryso-*; cp. *flavicant*.

auricle (L. *auricula*, the lobe of the ear), an appendage like the lobe of the ear; a flat marginal lateral or basal expansion of tissue: **auricled auriculate**, with auricles, a term applied to leaves provided with small rounded lobes at base.

australis (L.), southern; Australian.

autogamy (Gr. *autos*, self; *gamos*, marriage), the fecundation of a flower by its own pollen; syn. *close-fertilisation*; cp. *allogamy*.

autonomous (Gr. *autos*, self; *nomos*, law), said of movements that are spontaneous, *i.e.*, that arise from inherent tendency.

autophyllogeny (Gr. *autos*, self; *phullon*, a leaf; *genesis*, birth), the growth of one leaf upon another.

autumnal tints, the red and yellow tints assumed in autumn by decaying leaves in temperate regions.

avenaceous (L. *avena*, oats), pertaining to oats.

avenia avenous (Gr. *a*, without; *vena*, a vein), without veins; syn. *veinless*.

averse (L. *a*, from; *versus*, turned), turned away from: **—raphe**, one turned away from the placental axis; syn. *dorsal*; cp. *ventral, adverse*.

aviculary (L. *avicula*, dim. of *avis*, a bird), eaten by birds; cp. *aucuparious*.

awl-shaped, *subulate*.

awn (Gr. *achne*, chaff), a bristle-like appendage especially of the glumes of some grasses; syn. *arista*; cp. *seta*: **awned**; *aristate*: **awnless**, *muticous*.

axe-shaped, *dolabriform*.

axil (L. *axilla*, the armpit), the upper angle formed by a leaf, or its homologue, and the supporting stem: **axillary**, in or relating to the axil; syn. *alar*; cp. *intrafoliaceous, ramal*.

axis (L. an axle-tree), the central line or support upon or around which parts or organs are arranged: **axile**, belonging to or relating to the axis: **—placentas**, those attached to the inner angle of the cells of a compound or syncarpous ovary; cp. *free-central, parietal, sutural*.

azotic (Gr. *a*, without; *zoe*, life), pertaining to azote or nitrogen (the breathing of which causes death): **azotised**, containing nitrogen; see *proteid*.

azure (Pers. *lazur*), sky- or sea-blue; dark blue; syn. *cærulean*.

azygous (Gr. *a*, without; *zugon*, a yoke), single; not paired; without a corresponding part.

B

bacca (L.), see *berry*: **baccate**, berry-like; pulpy throughout; cp. *acinose*: **bacciferous** (L. *fero*, I bear), bearing berries: **bacciform** (L. *forma*, shape), berry-shaped: **baccetum**, an aggregation of baccate carpels in a flower; cp. *drupetum, follicetum*.

bacillar bacilliform (L. *bacillum*, a small staff; *forma*, shape), club-shaped; syn. *clavate*.

baculiform (L. *baculum*, a staff; *forma*, shape), rod-shaped: **baculiferous** (L. *fero*, I bear), bearing canes or reeds.

badius (L.), chestnut-brown; syn. *auburn, bay*, cp. *spadiceous*.

balausta (Gr. *balaustion*, a pomegranate flower), the fruit of the pomegranate, berry-like within with a firm rind; cp. *pepo*.

bald (Gr. *balios*, with few white hairs), without beard or appendages; see *calvous, imberbis, muticous*; cp. *naked*.

balsamiferous (L. *balsamum*, balsam; *fero*, I bear), bearing balsam, a kind of resin.

banner, the large upper petal of a papilionaceous flower; the large petal in Impatiens next the axis; syn. *standard, vexillum*.

barb (L. *barba*, a beard), a stout hair or bristle, double-hooked or arrow-headed: adj. **barbed**; syn. *glochidiate*; cp. *sagittate*: **barbate**, bearded; provided with long weak hairs; cp. *imberbis, caudate, crinite, comose, etc.*: **barbellate**, with shorter and stouter hairs; dim. **barbellulate.**

barberry family, Berberideæ.

bark, the outside integument of exogens consisting of the epidermis, a corky layer, green middle layer and the liber; a term sometimes restricted to the outer layer arising from the cork-cambium; cp. *epi-, meso-, endo-phlœum*; see *bast, liber, epidermis.*

barren, infertile, as a flower without pistil, anthers without pollen, ovary without ovules; syn. *sterile*; cp. *abortive, imperfect, cassus, cenanthous.*

base (L. *basis*, the foundation), the end at which an organ is attached to its support; cp. *apex*: — **of an anther**, that part where the cells are mos t distant: — **of a nucleous**, where the nucleus is confluent with the coats of the ovule; see *chalaza*: **basal basilar**, attached to the base: **basal placenta**, one at the base of the ovary; cp. *free central*: **basifixed**, said of an anther with connate cells attached at its lower end to the top of the filament; cp. *dorsifixed, medifixed, distractile, versatile* • **basinerved basal nerved**, with the ribs or nerves proceeding from the base of the leaf; cp. *costal-nerved.*

basigynium (Gr. *basis*, foundation; *gune* a female), see *carpophore.*

basin-shaped, *pelviform.*

basipetal (Gr. *basis*, the base; *peto*, I seek), developing from apex to base, as in cymose inflorescence; syn. *centrifugal*; cp. *acropetal.*

bast bass (Dut.), the fibrous inner bark of the lime tree between the ambium and cortical parenchyma and consisting of long thick-walled flexible cells called bast cells forming the *hard bast*, and an inner layer of bast parenchyma and sieve-cells forming the *soft bast* (syn. *phlœum*); see *liber.*

bastard, a rare term for *hybrid*, q. v.

bay (L. *badius*), chestnut-brown; syn. *badius*: — **tree** (Fr. *baie*), the laurel.

beak (Fr. *bec*), a sharp tip like the short bill of a bird: adj. **beaked**; syn. *rostrate*; Gr. *rhyncho* in comp.

bean-caper family, Zygophylleæ.

bear-breech or **bear's breech family**, Acanthaceæ.

beard (of grasses), *awn, seta*: **bearded** *barbate.*

bed (Ger. *bett*), a nursery or garden plot.

bedegar bedeguar (Pers.), a name for the spongy red galls of the wild rose.

beefwood family, Casuarineæ.

bellflower family, Campanulaceæ: **bell-shaped**, *campanulate.*

benzoin or storax family, Styraceæ.

berberis (L.), the barberry.

berry (Gr. *beere*), a simple fruit succulent throughout; a general name for succulent syncarpous indehiscent fruits of which *hesperidium, balausta* and *pepo* are special forms; syn. *bacca*; cp. *acinus.*

beryl (L. *beryllus*), a deep rich green.

bi- (L. *bis*, twice), two, twice, doubly.

biacuminate (L. *acumen*, a sharp point), with two diverging tapering ends like the peltate hairs of Malpighiaceæ.

biarticulate (L. *articulus*, a joint), two-jointed.

biauriculate (L. *auricula*, the lobe of the ear), two-auricled.

bibracteate (L. *bractea*, a thin leaf of metal), with two bracts: dim. **bibracteolate.**

bicallose (L. *callus*, the hard skin of animals), with two hard protuberances.

bicarinate (L. *carina*, a keel), two-keeled.

bicarpellary (Gr. *karpos*, fruit), with two distinct carpels.

bicephalous (Gr. *kephale*, the head), **biceps bicipital** (L. *caput*, the head), two-headed.

bicolorous (L. *color*), of two colours; cp. *unicolorous, discolorous.*

biconjugate (L. *con*, with; *jugum*, a yoke), with one pair of leaflets each consisting of a pair of leaflets, a form of bipinnate leaf; syn. *bigeminate*; cp. *bijugate, tergeminate.*

biconvex (L. *convexus*, vaulted), convex on both sides; syn. *lenticular.*

bicornis bicornute (L. *cornu*, a horn), two-horned.

bicruris (L. *crus*, the leg), with two supports; syn. *bipes*; see *crura*; cp. *furcate.*

bicuspid (L. *cuspis*, a point), ending in two points.

bidentate (L. *dens*, a tooth), having the marginal teeth of a leaf edged by smaller teeth; see *dentate*; cp. *biserrate*.

bidigitate (L. *digitus*, a finger), twice digitate; having the leaflets of a digitate leaf digitate; cp. *bipalmate*.

biduus (L. *biduum*, a period of two days), lasting for only two days.

biennial (L. *biennium*, a period of two years), lasting for only two years, vegetating the first season, flowering, seeding and dying the next; cp. *annual, perennial*.

bifarious (L. *bifarius*, two-fold), in two opposite vertical rows; syn. *distichous*; cp. *biseriate*.

biferous (L. *fero*, I bear), fruiting twice a year.

bifid (L. *findo*, I cleave), said of a leaf divided in two segments to or somewhat below the middle, the lobes or sinuses being narrow or acute; syn. *two-cleft*; cp. *bilobate, bipartite, bisect*.

biflorous (L. *flos*, a flower), two-flowered.

bifoliate (L. *folium*, a leaf; dim. *foliolum*), two-leaved; syn. *diphyllous*: **bifoliolate**, with two leaflets; cp. *unijugate, binate*.

bifollicular (L. *folliculus*, a little bag), consisting of two follicles.

biforate (L. *foris*, a door), having two apertures; syn. *bihilate*; cp. *biporose*.

biformis (L. *forma*, hape), in two shapes; syn. *dimorphic*.

bifrons (L.), with two aspects.

bifurcate (L. *furca*, a two-pronged fork), twice-forked, each prong furcate; see *chelate*; cp. *tri-* and *quadri-furcate, biramous*.

bigeminate, see *biconjugate*.

bigener (L. *genus*, a kind), descended from two generically different plants; cp. *congener*.

bihilate (L. *hilum*, a speck), see *biforate*.

bijugate (L. *jugum*, a yoke), with only two pairs of leaflets or pinnæ; cp. *unijugate, biconjugate*.

bilabiate (L. *labium*, a lip), two-lipped, a term applied to some gamopetalous flowers, the upper lip usually of two united petals the lower of three; syn. *labiate*; see *unilabiate, personate, ringent*; cp. *labiose*: —**imbricate**, bilabiate with overlapping lobes.

bilamellate (L. *lamella*, a small plate of metal), consisting of two plates.

bilateral (L. *latus*, a side), on opposite sides; cp. *unilateral, bifarious*.

bilobate (Gr. *lobos*, the lobe of the ear), said of a leaf divided into two parts not more than half-way down, the lobes or sinuses being rounded; syn. *two-lobed*; cp. *bifid, bipartite, bisect*.

bilocular (L. *loculus*, a little place), two-celled; cp. *dithecous*: **bilocellate**, said of a 1-celled ovary or anther divided by a partition into two secondary cells or locelli.

bimestris (L.), lasting for two months.

bimus bimulus (L.), two years old; lasting for two years.

binary (L. *bini*, two by two), a term for the plan of arrangement of the whorls of a flower in two parts each; see *dimerous*: **binate**, said of a leaf composed of two leaflets proceeding from the same point; cp. *bifoliolate*: **bini**, in pairs.

bindweed family, Convolvulaceæ.

binodal (L. *nodus*, a knot), with two nodes.

binomial more correctly **binominal** (L. *nomen*, a name), the nomenclature under which each plant has a name of two words, the first that of the genus, the second that of the species or a distinguishing specific or trivial epithet, followed by the abbreviated form of the name of the botanist who was the author of the species, as Shorea robusta, *Linn.*

biogenesis (Gr. *bios*, life; *genesis*, origin), production of living cells from similar cells; propagation by cell-division.

biology (Gr. *bios*, life; *logos*, a discourse), the science of life, animal and vegetable.

bioplasm (Gr. *bios*, life; *plasma*, formed), see *protoplasm*.

bipalmate (L. *bis*, twice; *palma*, the palm of the hand), twice palmate; having the leaflets of a palmate leaf palmate; cp. *bidigitate*.

biparous (L. *pario*, I bring forth), said of an inflorescence the main axis of which has near the apex two bracts from the axils of each of which lateral axes proceed, each lateral axis dividing similarly; syn. *dichotomous*; cp. *uniparous, dichasium*.

bipartite (L. *bis*, twice; *partitus*, divided), divided into two parts almost to the base; syn. *two-parted*; cp. *bifid, bilobed, bisect*: **bipartible**, capable of being divided into two similar parts.

bipes (L. *pes*, a foot), see *bicruris*.

bipinnate (L. *pinna*, a feather), twice-pinnate; the leaflets of a pinnate leaf again pinnate: **bipinnatifid** (L. *findo*, I cleave), twice pinnatifid: **bipinnatisect** (L. *seco*, I cut), twice pinnatisect.

biplicate (L. *plico*, I fold), twice folded or plaited.

biporose (Gr. *poros*, a passage), opening by two pores; cp. *biforate, birimose.*

biradiate (L. *radius*, the spoke of a wheel), with two rays.

biramous (L. *ramus*, a branch), divided into two branches.

birimose (L. *rima*, a cleft), opening by two slits; cp. *biporose.*

birth-wort family, Aristolochiaceæ.

bisect bisected (L. *seco*, I cut), completely divided into two parts; cp. *bilobed, bifid, bipartite.*

biseptate (L. *septum*, a partition), with two septa or partitions lengthwise.

biserial biseriate (L. *series*, a row), in two rows transverse or lengthwise, usually the former; cp. *bifarious.*

biserrate (L. *serra*, a saw), with alternately large and small teeth (directed forward) at margin; syn. *duplicato-serrate*; cp. *bidentate.*

bisexual 2-sex. (L. *sexus*, the male or female sex), having both stamens and pistil in the same flower; symbol ☿; syn. *hermaphrodite, monoclinous, perfect, teleianthous*; cp. *unisexual, polygamous.*

bisulcate (L. *sulcus*, a furrow), having two furrows or grooves.

biternate (L. *terni*, in threes), twice-ternate; each leaflet of a ternate leaf divided into three.

bivalved (L. *valvæ*, folding doors), with a vessel or carpel consisting of two valves: n. **bivalve**; see *frustule.*

bivittate (L. *vitta*, a band or fillet), with two *vittæ*, q.v.; two-striped.

bizarria (It. *bizarre*, strange), a term for a hybrid between orange and citron in which the characteristics of each species are not blended but in juxtaposition.

bladdery (AS.), thin and inflated; syn. *utriculate*; cp. *ampullaceous.*

blade (Ger. *blatt*, a leaf), the expanded portion of a leaf or of a clawed petal; syn. *lamina*; cp. *stalk, phyllode.*

blanched (Fr. *blanc*, white), whitened; syn. *etiolated, bleached.*

blastema (Gr. *blastano*, I germinate), the axis of the embryo; the initial point from which any organ is developed: **blastemal**, *rudimentary.*

blastocolla (Gr. *blastos*, a bud; *kolla*, glue), a gum-like coating of buds; see *colleters.*

bleached, *blanched.*

bleeding, exudation of sap from wounds caused by pruning.

blending, a hybrid formed by the crossing of races.

bletting (Gr. *bletos*, wounded), the organic change in a ripe or unripe fruit after its separation from the branch.

blistered, see *pustulate, bullate, papulose.*

blood-root family, Hæmodoraceæ.

bloom (Ger. *blume*, flower), blossom; the waxy white or glaucous covering of the surface of some fruits and leaves.

blotch, a broad patch of colour; cp. *eye*: **blotched**, with a broad patch or patches of colour different from the general colour of the part or organ; see *maculate, notate, halonate.*

bluish-green, *glaucous*: **bluish-grey**, *griseous, cæsius*; see *azure.*

blunt, *muticous, obtuse.*

boat-shaped, *cymbiform, navicular, scaphoid*; cp. *carinate.*

bole, the main axis of a tree; syn. *trunk*; cp. *stem.*

bombysine (Gr. *bombux*, the silkworm), of silken texture; cp. *sericeous.*

bony, *osseous.*

bossed (Ger. *bausch*, a projection), with a conical or rounded protuberance; syn. *umbonate.*

bostryx (Gr. a ringlet), a cymose form of inflorescence in which the lateral axes are always transverse to the relatively main axis and successively fall on the same side; an uniparous helicoid cyme, a form of *monochasium*; cp. *cincinnus*: **bostrycoidal** (Gr. *eidos*, form), in the form of a bostryx.

botany (Gr. *botané*, herbage), the science of plants, a branch of biology; syn. *phytology.*

bothrenchyma (Gr. *bothros*, a pit; *engchuma*, tissue), tissue consisting of dotted or pitted ducts; syn. *taphrenchyma.*

botryoidal botryose (Gr. *botrus*, a bunch of grapes; *eidos*, form), said of that type of inflorescence in which the main axis is not terminated by a flower and the flowering proceeds from without

or below upwards and towards the centre, as in the following forms, raceme, panicle, head, umbel, corymb, spike, spadix and catkin ; syn. *indeterminate, indefinite, acropetal, ascending, centripetal* ; cp. *cymose* : — **cyme,** a false raceme or spike ; syn. *monochasium* : **botry-cymose,** a mixed inflorescence in which racemes or other inflorescences of the botryose type are developed in cymose order, as in Compositæ ; cp. *cymo-botryose, thyrsus.*

bottle-shaped, *ampullaceous.*

botuliform (L. *botulus,* a sausage ; *forma,* shape), sausage-shaped ; syn. *allantoid.*

bow-shaped, *arcuate.*

bowl-shaped, *calathiform, etc.*

boyaux (Fr.), pollen tubes that pass through the stigma to the ovary causing fecundation.

brachiate (L. *brachium,* the arm), widely spreading, as branches especially when alternately disposed in pairs, *i.e.,* opposite and decussate ; cp. *diffuse.*

brachy- (Gr. *brachus,* short), prefix.

brachypodous (Gr. *pous,* a foot), short-stalked.

brachyurous (Gr. *oura,* a tail), short-tailed.

bract (L. *bractea,* a thin plate of metal), a leaf subtending, *i.e.,* on or near the base of, a flower or flowering branch or inflorescence and differing from a stem-leaf in size, shape, arrangement and often in colour ; syn. *hypsophyllum* ; cp. *spathe, involucre* : adj. **bracteate; bracteole bractlet,** a small secondary bract at the base of each flower of an inflorescence ; cp. *glume, palet* : adj. **bracteolate : bractless,** *ebracteate* : **bract-scale,** the lower member of the scale of the female cone of Pine, Fir, etc.

branch, the primary division of a stem : dim. **branchlet.**

brand (Ger. a burning stake), a scorched appearance on leaves due to a parasitic fungus ; cp. *dew-rust, deustate.*

breathing pores, *stomata.*

brevi- (L. *brevis,* short), prefix.

bristle (AS.), a stiff hair ; see *seta* : **bristly,** *setose.*

broom-rape family, Orobanchaceæ.

brumal (L. *bruma,* winter), relating to or belonging to winter ; syn. *hiemal* ; cp. *æstival, vernal.*

brunneus (Fr. *brun,* brown), deep brown ; cp. *badius.*

brush-shaped, *aspergilliform.*

buckler-shaped, *scutate.*

buckthorn family, Rhamneæ.

buckwheat family, Polygonaceæ.

bud, the terminal or axillary undeveloped flower (*alabastrum*), or incipient stem with its rudimentary leaves (*gemma*) : **bud-scales,** the homologues of leaves but modified and serving to protect the rudimentary parts of a flower or stem ; cp. *perula, cataphylla* : **budding,** propagation by attaching a bud with a small portion of adjacent wood and bark to the wood of another plant called the stock ; cp. *ennobling, scion, stock.*

bulb (L. *bulbus,* an onion), a leaf-bud usually subterranean consisting of a short fleshy axis enclosed in thickened or fleshy coats or scales : **bulbil bulbule bulblet,** small axillary bulbs ; syn. *satelles, propagines* : **bulbiceps** (L. *caput,* the head), a stem with the base bulbous : **bulbiferous** (L. *fero,* I bear), bearing bulbs : **bulbodium bulbotuber,** a solid bulb ; syn. *corm* ; cp. *tuber* : **bulbous bulbose,** with the appearance or structure of bulbs.

bullate (L. *bulla,* a bubble), puckered ; with blister-like elevations ; cp. *pustulate.*

bulrush family, Typhaceæ.

bur burr, cupule of the chestnut ; ripened capitula of many Compositæ ; glomerules or solitary flowers of many Tiliaceæ, Malvaceæ, and Amarantaceæ, and of some Labiatæ ; see *lappaceous.*

bursicula (L. dim. of *bursa,* a pouch), the sack-like excavation in the rostellum of an Orchis enclosing the disc or gland of the caudicle ; cp. *clinandrium* : **bursiculate,** having a small pouch.

bush, a shrub or small tree ; a collection of shrubs (syn. *scrub*) ; a Cape and Australian term for forest : **bushy,** *dumetose, dumose, fruticose.*

butterwort family, Lentibulariæ.

byssaceous byssoid (L. *byssus* ; Gr. *bussos,* fine flax ; *eidos,* likeness), consisting of fine entangled threads ; cp. *arachnoid, etc.*

C

cactus or Indian fig family, Cacteæ.

caducous (L. *cado,* I fall), falling off early, as some sepals or petals before the

fecundation of the ovary ; cp. *deciduous, fugacious.*

cænose (L. *cænum,* mud), muddy ; growing in muddy or miry soil.

cærulean (L. *cæruleus*), dark blue ; syn. *azure.*

cæsius (L.), bluish-grey ; syn. *griseous.*

cæspitose (L. *cæspes,* cut grass, turf), growing in tufts ; tufted ; see *aspergilliform* : dim. **cæspitellose.**

calathidium calathium (L. *calathus,* a bowl or basket), the head of flowers in Compositæ ; syn. *anthodium, cephalanthium* : **calathiform** (L. *forma,* shape), concave, bowl-shaped hemispherical ; cp. *crateriform, cotyliform, cyathiform, poculiform.*

calcarate (L. *calcar,* a spur), spurred ; cp. *corydaline* : n. **calcar** ; syn. *productum* ; cp. *rostrum.*

calcareous (L. *calx,* lime), containing lime.

calceiform calceolate (L. *calceus,* a shoe covering the whole foot), shoe-shaped ; cp. *soleæform.*

callose callous (L. *callus,* the hard skin of animals), having hard and thick protuberances : n. **callosity,** a hard thickening of tissue : **callus,** healing tissue which forms over the wounds of plants.

calo- (Gr. *kalos,* beautiful), prefix.

caltha (L.), the marigold.

calvous (L. *calvus*), bald, as an achene without pappus ; see *bald.*

calycanthemy (Gr. *kalux,* a cup ; *anthos,* a flower), alteration of the calyx so that it resembles the corolla ; cp. *petalody.*

calycifloral (L. *calyx,* a cup ; *flos,* a flower), with the petals inserted upon the calyx : **Calycifloræ,** one of the three main divisions of Polypetalæ ; cp. *Disciflorœ, Thalamiflorœ.*

calyculus, see under *calyx.*

calyptra (Gr. *kaluptra,* a covering), a cap, hood or veil : **calyptrate,** hooded, arranged like a cap ; cp. *cucullate, galeate, cassideous, mitriform* : **calyptrimorphous** (Gr. *morphe,* shape), **caliptriform** (L. *forma,* shape), calyptra-shaped, as the calyx of Eschscholtzia ; said also of pitchers (ascidia) with distinct lids.

calyx pl. **calyces** (L. a flower-cup), the outer whorl of flower-leaves or sepals immediately below the corolla : **calycine calycate,** relating to the calyx : **calycoid** (Gr. *eidos,* likeness), resembling a calyx : **calycle calyculus,** a whorl of bracts below a calyx resembling an additional calyx ; syn. *epicalyx* ; cp. *involucre* : **calyculate,** provided with a calyculus ; cp. *involucrate.*

cambium (L. *cambio,* I change), viscid matter formed between the wood and bark during growth of exogens :—**layer,** zone of delicate cells between wood and bark in exogens, gorged with sap during the growing period, and consisting of an inner layer of nascent wood and an outer layer of nascent bark.

camera (L. a chamber), the cell of a fruit : dim. **camerula.**

campaniform campanulate (L. *campana,* a bell ; *forma,* shape), bell-shaped ; cp. *infundibuliform, urceolate.*

campestris (L. *campus,* a plain), growing on plains ; cp. *agrestis, etc.*

camptotropous (Gr. *kamptos,* bent ; *tropos,* a turn), said of a campylotropous ovule curved so that the portions on either side the curve are equal.

campylospermous (Gr. *kampulos,* curved ; *sperma,* a seed), with the albumen of the seed curved at margin to form a longitudinal furrow along the ventral face.

campylotropous (Gr. *kampulos,* curved ; *tropos,* a turn), said of an ovule so curved that the foramen or apex is near the base where the chalaza and hilum are together, the portions on either side the curve being usually unequal ; cp. *campto-, ortho-, amphi-, ana-tropous.*

canaliculate (L. *canaliculus,* a water channel), channelled with longitudinal groove ; cp. *glypholecine, lirellate, striate, sulcate.*

cancellate (L. *cancelli,* a grating), latticed, like lattice-work ; syn. *clathrate.*

candidus (L.), pure white ; syn. (Gr.) *argos.*

canescent (L. *canus,* whitish grey), with extremely short hairs or pubescence giving the epidermis a greyish white hue ; syn. *incanus* ; cp. *albescent, farinose, floccose, pruinose* : n. **canescence** : **cano-tomentose,** with a whitish grey tomentum of fine matted hairs.

canker (L. *cancer,* a corroding sore), a plant disease arising from the attacks of a fungus.

cap, *pileus.*

caper (L. *capparis*), the buds, preserved in vinegar, of the caper plant: —**family**, Capparideæ.

capillary capillaceous (L. *capillus*, hair), slender-hairy or thread-like; cp. *setaceous*: **capillaceo-multifid**, having many hair-like divisions at margin; cp. *lacinulate, ciliate.*

capitate (L. *caput*, the head), with a globose head; collected in a head: dim. **capitellate**: **capitate stigma**, one forming a distinct head on the top of the style: **capitulum**, a globose head or cluster of sessile or shortly pedicellate flowers; syn. *glomus*; cp. *anthodium, umbel, spike.*

capreolate (L. *capreolus*, a vine tendril), bearing stem-tendrils, *i.e.*, tendrils which are modified stems or flower stalks; cp. *cirrhose, costal-cirrhose.*

caprification (L. *caprificus*, the wild fig), ripening figs by puncturing or by insects, or by hanging branches of the wild fig on the cultivated trees to secure pollination by the gall insects thus introduced.

capsule (L. *capsa*, a chest; dim. *capsula*), a dry dehiscent syncarpous fruit, *i.e.*, one of united dry carpels opening at maturity to discharge the seed; cp. *schizocarp*: adj. **capsular**: **capsuliferous** (L. *fero*, I bear), bearing capsules.

carbonaceous (L. *carbo*, a coal), black; see *atratous.*

carcerule (L. *carcer*, a prison), each 1-seeded indehiscent carpel of a dry syncarpous fruit, as in Malva; one of the component parts of a schizocarp; syn. *synechorion*; cp. *camera, coccus, nucule.*

carduus (L.), the thistle.

carex (L.), a sedge.

carina (L. a keel), the salient keel-like projection in the lower face of an organ; the combined lower petals of a papilionaceous corolla: **carinate**, keeled; cp. *boat-shaped.*

cariopsis, see *caryopsis.*

carious (L. *caries*, decay), decayed.

carminative (It, *carminare*, to card wool), useful in cases of colic and flatulence.

carneous (L. *caro*, gen. *carnis*, flesh), pale red; flesh-coloured; syn. *incarnate*: **carnose**, of fleshy consistence.

carpadilium (Gr. *karpos*, fruit; *duo*, I put on), *cremocarp*, q.v.

carpel carpid carpidium (Gr. *karpos*, fruit), a simple pistil or one of the component parts of a compound pistil or syncarpous fruit; one of the parts of the innermost whorl of a flower having a pistil; syn, *carpophyll*: **carpellary**, belonging to or relating to a carpel.

carpology (Gr. *karpos*, fruit; *logos*, a discourse), the study of fruits.

carpophore (Gr. *karpos*, fruit; *phoreo*, I bear), a portion of the receptacle prolonged between the carpels as a central axis, as in Geranium; syn. *basigynium*; cp. *columella, gynophore, gynobase.*

carpophyll (Gr. *karpos*, fruit; *phullon*, a leaf), *carpel.*

cartilaginous (L. *cartilago*, gristle), firm and tough like parchment; cp. *chartaceous, coriaceous*: —**putamen**, the tough endocarp of pome fruits.

caruncle (L. *caruncula*, a small piece of flesh), a wart-shaped appendage produced by an outgrowth of the foramen of the ovule, as in Euphorbia; cp. *strophiole, aril*: **caruncule**, provided with a caruncle; cp. *cristate, tuberculate, verrucose.*

caryophyllaceous (Gr. *karuophullon*, a clove), with clawed petals like Dianthus; pertaining to the pink or clovewort family (*caryophylleæ*).

caryopsis (Gr. *karuon*, a nut; *opsis*, form), the seed-like fruit of Gramineæ, one-seeded, the thin seed-coat adnate to the pericarp; cp. *amphispermium.*

cassideous (L. *cassis*, a helmet), helmet-shaped; syn. *galeate*; cp. *calyptrate.*

cassus (L. empty), said of an anther without pollen; see *barren.*

castrate (L. *castrare*, to emasculate), said of stamens without anthers; syn. *anantherous.*

cata (Gr. down, upon), prefix.

catacorolla (L. *corolla*, a small wreath), a secondary corolla formed inside or outside the first one.

catapetalous (L. *petalon*, a petal), with the petals united at base by their adhesion to united stamens, as in Mallow.

cataphylla (Gr. *phullon*, a leaf), the first leaves of a growth, as cotyledons, bud-scales, rhizome-scales; cp. *perula, hibernaculum*: adj. **cataphyllary.**

cataplasm (Gr. *plasmos*, formed), a plaster.

catapult fruits (Gr. *pallo*, I hurl), those which discharge their seeds or segments

by an elastic springing back of the peduncles or pedicels; see *resilient*; cp. *sling-fruits*.

catarrhal (Gr. *rheo*, I flow), pertaining to a flow of mucus from the nostrils.

catenulate (L. *catena*, a chain), united end to end like the links of a chain; syn. *concatenate*; cp. *moniliform*.

cathartic (Gr. *kathairo*, I purge), purgative.

catkin, a pendulous, ordinarily deciduous, spike of unisexual flowers with usually scaly bracts, the whole resembling a cat's tail; syn. *ament*, *nucamentum*.

caudate (L. *cauda*, a tail), furnished with a slender tail-like appendage; cp. *barbate*, *pogon*: —**acuminate**, gradually narrowed and ending in a whip-like tail.

caudex (L. the trunk), the unbranched stem of a palm or tree-fern (cp. *stipe*); the persistent base of herbaceous perennials the stems of which die down and are renewed annually (syn. *stock*): —**columnaris**, the column-like stem of some palms.

caudicle (L. *caudicula*, a little tail), the stalk of the pollinium in Orchideæ: **caudicule**, the neck of the germinating embryo; syn. *scapellus*; cp. *collum*.

caulis (L. a stalk), the stem of a plant: **caulescent**, with distinct stems rising above the ground: **caulicle**, the initial stem of the embryo often called the radicle: **cauline**, belonging to or inserted on the stem: **cauloid** (Gr. *eidos*, likeness), stem-like: **caulome** (Gr. *caulon*), the stem-portion of a plant.

caulocarpic (Gr. *caulon*, a stem; *karpos*, fruit), having more or less persistent stems that flower and fruit for a succession of years; syn. *polycarpic*; cp. *monocarpic*.

caustic (Gr. *kaustikos*, having the power to burn), having the property of corroding living tissue by chemical action.

cavernous (L. *cavus*, hollow), with large cavities or hollows; cp. *fenestrate*, *alveolate*.

cecidium (L. *cædo*, I kill), abnormal growth caused by the attack of a fungus or insect; syn. *gall*.

cell (L. *cella*, a room), a cavity; the structural unit in the formation of, or histological element of, a plant, consisting of a wall of cellulose enclosing protoplasm; the living vegetable unit (cp. *vessel*) forming, when collected, cellular tissue (syn. *parenchyma*); the cavity of an anther or anther-lobe (syn. *theca*); the cavity or one of the cavities of an ovary or pericarp containing ovules (cp. *loculus*, *camera*): **cellular**, composed of cells; cp. *vascular*: **cellule**, a minute cell; the cavity formed by the subdivison of an anther-cell by a membrane or septum: **cellulose**, the substance composing the wall of the vegetable cell, a carbo-hydrate or ternary compound of carbon hydrogen and oxygen, $C_6 H_{10} O_5$.

cenanthous (Gr. *kenos*, empty; *anthos*, a flower), with both stamens and pistil wanting in the flower; cp. *cassus*, *inane*, *imperfect*; see *barren*.

cenobium (Gr. *koinos*, common), a four-parted fruit consisting of four nucules around a common style, the characteristic fruit of Boragineæ and Labiatæ.

centrifugal (L. *centrum*, the centre; *fugio*, I flee), developing from the centre outward; said of an inflorescence in which the terminal flower opens first and the flowering then develops successively from the centre outwards; syn. *cymose*: —**radicle**, one that points to the side of pericarp.; syn. *peritropous*, *etc.*

centripetal (L. *centrum*, the centre; *peto*, I seek), developing from without inwards; said of an inflorescence in which the flowers at the base or at the circumference open first and the flowering then develops successively towards the centre upwards, the axis often elongating; syn. *botryose*: —**radicle**, one that points directly to the axis of the pericarp.

cephalanthium (Gr. *kephalé*, the head; *anthos*, a flower), syn. *anthodium*.

cephaloid (Gr. *kephalé*, the head; *eidos*, likeness), head-shaped; scp. *capitate*.

cephalonion (Gr. *kephalé*, the head), term for a leaf-gall joined to the leaf by a narrow neck.

cerase (L. *cerasus*, the cherry tree), cherry or plum coloured, somewhat reddish brown; cp. *rufous*.

ceraseous cerate cerated (L. *cera*, wax), waxy; covered with a waxy exudation: **cerinous**, of a whitish yellow colour: **ceriferous** (L. *fero*, I bear), bearing or producing wax.

ceratium (Gr. *keras*, horn; *keration*, a little horn), a siliquiform capsule like that of Corydalis, long, 1-celled, 2-valved with many seeds on two placentas alternate with the lobes of the stigma: **ceratophyllous**, with stag-horn-like petals: **ceratonion**, a term for a hollow horny gall.

cereal (L. *Ceres*, the goddess of corn and fruits), pertaining to all kinds of grain used for food.

cernuous (L. *cernuus*, bowing), drooping; cp. *nutant*, *pendulous*.

cervinous (L. *cervus*, a stag), orange-yellow; syn. *fulvous*; cp. *tawny*, *testaceous*.

chæta (Gr.), a bristle; syn. (L.) *seta*.

chaff (AS. *ceaf*), small scales; dry bracts; the glumes and paleæ of grasses; adj. **chaffy**; syn. *paleaceous*.

chalaza (Gr. a small tubercle), that part of the ovule where the coats unite with the base of the nucleus; cp. *hilum*, *raphe*: **chalazogamic** (Gr. *gamos*, marriage), fertilised through the chalaza and not through the foramen, as in Hazel, an exceptional condition; cp. *porogamic*.

chamæ (Gr. *chamai*, upon the ground) lowly), prefix.

channelled, *canaliculate*.

characters (Gr. *charakter*, a mark), distinguishing peculiarities of form and structure which differentiate between species (specific), genera (generic), and orders (ordinal).

chartaceous (L. *charta*, paper), thin and flexible with the texture of writing paper; syn. *papyraceous*; cp. *cartilaginous*, *coriaceous*, *pergamentaceous*.

chasmogamy (Gr. *chasma*, an opening; *gamos*, marriage), the opening of the perianth at flowering time or anthesis; fecundation of open flowers: adj. **chasmogamous**; cp. *cleistogamous*.

cheirostemonous (Gr. *cheir*, the hand; *stemon*, the warp of a loom), with five stamens united at base.

chelate (Gr. *kélé*, the claw of a crab), with two-cleft claws; cp. *bifurcate*.

chestnut (L. *castanea*, the chestnut tree), of a rich brown; syn. *badius*: —**family**, Cupuliferæ.

chisel-shaped, *scalpriform*.

chitinous, (Gr. *chiton*, a coat of mail), of a horny texture; syn. *corneous*; cp. *cornute*.

chloranthy chlorosis (Gr. *chloros*, grass-green; *anthos*, a flower), the change of blossoms from coloured or petaloid to green or herbaceous (cp. *antholysis*); the loss of a normal green colour (cp. *etiolation*): **chloranthous**, green-flowered: **chlorotic**, relating to chlorosis.

chlorophyll (Gr. *chloros*, grass-green; *phullon*, a leaf), the green colouring matter of plants; syn. *phytochlor*; cp. *chromule*, *erythrophyll*, *xanthophyll*: —**corpuscle**, a green protoplasmic body containing chlorophyll embedded in the cell protoplasm of the green parts of plants: **chlorenchyma** (Gr. *engchuma*, tissue), green chlorophyll-containing tissue.

chorion (Gr. skin), name for the earliest form of the nucleus of the ovule; cp. *amnios*, *vitellus*.

choripetalous (Gr. *chorizo*, I separate; *petalon*, a petal), with distinct, *i.e.*, separate petals; syn. *poly-*, *dialy-*, *eleuthero-petalous*: **chorisepalous**, with distinct sepals; syn. *polysepalous*.

chorisis, (Gr. *chorizo*, I separate), the division of a morphologically single organ into two or more, usually applied to division or splitting of stamens and carpels; it is termed *complete* when the divisions are distinct to the point of insertion, *incomplete* when they do not extend to the base, *collateral* when side by side, *median* when antero-posterior; syn. *deduplication*, *diremption*; cp. *adesmy*, *dialysis*, *hyperplasia*, *merismatic*.

choristophyllous (Gr. *choristos*, separate; *phullon*, a leaf), separate-leaved.

chromatophore (Gr. *chroma* colour; *phoreo*, I bear), any protoplasmic body containing a pigment, as a chlorophyll corpuscle.

chromule (Gr. *chroma*, colour), colouring matter of plants other than chlorophyll, as in petals and sometimes in leaves: **chromatosis** (Gr. *ptosis*, a fall), discolouration.

chrysanthous (Gr. *chrysos*, golden-yellow; *anthos*, a flower), golden-yellow flowered: **chrysophyllous** (Gr. *phullon*, a leaf), with golden-yellow leaves; cp. *xanthophyllous*.

cicatrix (L. a scar), a mark such as that left by the fall of a leaf or other organ; cp. *scar*: dim. **cicatricula**: **cicatricose cicatrisate**, marked with scars.

cilium pl. **cilia** (L. an eyelash), thick marginal hairs forming a fringe: adj. **ciliate**: dim. **ciliolate**; cp. *barbate*, *penicellate*, *capillaceo-multifid*.

cincinnus (L. curled hair), a cymose form of inflorescence in which the lateral axes are always transverse to the relatively main axis and fall alternately on opposite

sides of it ; a uniparous scorpioid cyme ; see *monochasium* ; cp. *bostryx*.

cinctured (L. *cinctura*, a girdle), surrounded with a belt, band or girdle ; syn. *cingulate* ; cp. *annulate*.

cinenchyma (Gr. *kineo*, I move ; *engchuma*, tissue), tissue formed of anastomosing cells containing a viscid juice or latex ; syn. *laticiferous tissue* : adj. **cinenchymatous**.

cinereous (L. *cinis*, ashes), ash-grey : **cinerascent cineraceous**, somewhat ash-grey.

cingulate (L. *cingulum*, a girdle), see *cinctured*.

cinnabarine (Gr. *kinnabari*, vermilion), scarlet tinged with orange ; syn. *miniate* ; cp. *flammeous*.

cinnamomeous (Gr. *kinnamon*, cinnamon), bright reddish brown ; cp. *auburn*.

circinate circinal (L. *circino*, I turn round), coiled inward from the tip like the young frond of most ferns ; see *scorpioid* ; cp. *gyrate*, *tortile*, *cirriform*.

circumsciss circumscissile (L. *circum*, around ; *scindo*, I split), dividing or opening circularly or transversely, as a capsule opening by a lid ; see *pyxidium*.

circumscription (L. *circum*, around ; *scribo*, I write), the margin of a leaf or other flat body ; syn. *periphery*.

cirrhus cirrus (L. *cirrus*, a curl), a tendril : **cirrhose cirrose cirriferous cirrigerous**, bearing tendrils ; cp. *capreolate* : **cirriform** (L. *forma*, shape), curled like a tendrill ; cp. *circinate*.

cistus-rape family, Cytinaceæ.

citreous citrine (L. *citrus*, a lemon), lemon coloured : **citric acid**, a vegetable acid found abundantly in lemons ; cp. *malic*.

cladenchyma (Gr. *clados*, a branch ; *engchuma*, tissue), tissue composed of branching cells, as in the case of some hairs.

cladode cladodium (Gr. *clados*, a branch ; *duo*, I put on), **cladophyll cladophyllum** (Gr. *phullon*, a leaf), flattened branches, axillary and of usually one internode, which assume the form and function of leaves ; syn. *phyllocladium* ; cp. *phyllode*.

cladoptosis (Gr. *klados*, a branch ; *ptosis*, a fall), the natural shedding and fall of branches.

clamp cells, the nipple-like cells by which an epiphytic root adheres to its support.

class (L. *classis*, a division), a main division comprising a number of related natural orders ; cp. *phylum* : **classification**, scientific arrangement : **natural—of plants**, their arrangement according to the degree of resemblance in all respects : **artificial—**, arrangement according to a few arbitrary points of resemblance ; see *natural* and *sexual system*.

clathrate (Gr. *klethra*, a trellis,) latticed ; syn. *cancellate*.

clavate claviform (L. *clavus*, a club), club-shaped ; slender below and thickened gradually upward ; syn. *bacillar* : dim. **clavellate** : **clavellose**, with club-shaped processes.

clavis (L. a key), an analytical index.

claw (L. *clavus*, a nail), the narrowed base of certain petals, the broad part being called the *lamina* : **clawed**, *unguiculate* ; cp. *acronychious*, *etc.*

cleft, divided half-way down or more between margin and midrib with the lobes or sinuses narrow or acute ; syn. *—fid*, as *bifid*, two-cleft ; cp. *lobed*, *parted*, *divided*.

cleistogamic cleistogamous (Gr. *kleistos*, closed ; *gamos*, marriage), self-fertilised in unopened or inconspicuous blossoms ; cp. *autogamous*, *allogamous* : n. **cleistogamy** ; cp. *chasmogamy*.

cleistogenous (Gr. *gennao* ; I produce) syn. *cleistogamous*.

climber, a general term for allplants that, ascend upon a support by twining or by means of tendrils or hooks or aerial roots (suckers) or other attachments ; see *creeper*, *vine* ; cp. *twiner*, *repent*, *voluble*.

clinandrium (Gr. *kline*, a bed ; *aner*, a male), the cavity in the column containing the anther in Orchideæ ; cp. *bursicula*.

clinanthium (Gr. *kline*, a bed ; *anthos*, a flower), the receptacle of a capitulum in Compositæ ; syn. *anthoclinium*, *amphanthium*, *phoranthium* ; cp. *capitulum*.

close (L. *clausus*, shut up), dense, contracted, as some cymes ; syn. *compact* ; cp. *diffuse*, *lax*.

close-fertilisation, fecundation of a flower by its own pollen ; syn. *autogamy* ; cp. *cleistogamy*.

cloven, see *cleft*.

cloves (Ger. *kloven*, to cleave), small bulbs formed around the parent bulb : (L. *clavus*, a nail), the dried flower-buds of Caryophyllus aromaticus : **clove-wort or pink family**, Caryophylleæ.

club-shaped, *clavate, bacillar.*

cluster, a general name for any collection or assemblage of fruits or flowers on a plant : adj. **clustered.**

clypeate clypeiform clypeolar (L. *clipeus*, a round or oval shield), shield-shaped ; provided with a shield ; cp. *scutate, peltiform.*

coacerrate coacervate (L. *coacervo*, I heap up), heaped together ; syn. *congested* ; see *acervulus* ; cp. *agglomerate, coarctate, grumous.*

coadnate, see *adnate.*

coalescence (L. *cum*, with ; *alesco*, I grow), the organic union of similar parts ; syn. *cohesion, symphysis.*

coarctate (L. *coarcto*, I draw together), crowded or closely pressed together ; syn. *aggregate, agglomerate* ; cp. *coacervate* : **coarcture**, see *collum.*

coat, the covering, rind, or epidermis ; see *integument, extine, testa* : **coated**, *tunicated.*

cob, common term for the spike of the maize plant.

cobwebby, with long and soft entangled hairs ; syn. *arenose, arachnoid, cortinate, byssoid* ; cp. *tomentose.*

cocci pl. of **coccus** (Gr. *kokkos*, a kernel), the seed-like dehiscent or indehiscent lobes of a dry pericarp separating at maturity ; the segments of a schizocarp ; syn. *carcerule, nucule* ; cp. *achene, etc.*

coccineous (L. *coccum*, berry of the scarlet oak), scarlet or bright red.

coccodes (Gr. *kokkos*, a kernel), spherical protuberances : **cocculum**, a seed-cell which opens elastically.

cochlear cochleariform (L. *cochlear*, a spoon), spoon-shaped ; cp. *spatulate* : **—æstivation**, when five petals are arranged in a whorl so that one is wholly outside, one wholly inside and three partly within and partly without the coil, an intermediate stage between *quincuncial* and *convolute*, q. v.

cochleate (L. *cochlea*, a snail), spiral like a snail shell ; cp. *helicine, conchiform.*

codiophyllous (Gr. *kodeia*, a poppy head ; *phullon*, a leaf), woolly-leaved ; syn. *dasyphyllous, eriophyllous.*

cœlospermous (Gr. *koilos*, hollow ; *sperma*, a seed), curved on the ventral face, the apex and base approaching, as in the seed-like carpels of Umbelliferæ.

cœnanthium (Gr. *koinos*, common ; *anthos*, a flower), the receptacle of a capitulum in Compositæ ; syn. *clinanthium, etc.*

cœnobio cœnobium (Gr. *koinos*, common), a definite number of individuals collected togother ; a *schizocarp.*

cœnose, see *cænose.*

cœrulean, see *cærulean.*

cognomen (L. *con*, with ; *nomen*, a name), the second, "specific" or trivial portion of the name of a plant ; cp. *prænomen.*

coherent (L. *cohæro*, to stick together), similar parts united but separable without laceration ; cp. *adherent, connate* : **cohesion**, the union of similar parts or organs ; cp. *adhesion.*

cohort (L. *cohors*, a troop), a group of nearly related natural orders or families ; syn. *alliance.*

coleorhiza (Gr. *koleos*, a sheath ; *rhiza*, a root), the root-sheath of the seeds of monocotyledons, a covering formed by the basal portion of the cotyledon and the outermost leaf of the plumule through which the primary roots grow in germination ; cp. *pileorhiza, spongiole, rootcap.*

collar, see *collum.*

collateral (L. *con*, together ; *latus*, a side), side by side (cp. *superposed*) ; on one side of the plane containing bract and axis : **—chorisis**, the multiplication laterally of organs morphologically one ; syn. *parallel, verticillate, transverse* ; cp. *median.*

collective fruit, one resulting from the aggregation of several separate flowers into one mass, as in Fig, Mulberry and Pineapple ; syn. *multiple—* ; cp. *aggregate.*

collenchyma (Gr. *kolle*, glue ; *engchuma*, tissue), cellular tissue consisting of prism-shaped cells with thickened angles and becoming glutinous when moistened owing to the glue-like substance that unites the cells.

collet, see *collum.*

colleters (Gr. *kolletos*, glued), the glandular hairs on leaf-buds forming *blastocolla* : **colletic**, glue-like ; capable of gluing : **colloid** (Gr. *eidos*, likeness), a gelatinous inorganic substance, or viscid mass of proteid, which forms a part of

protoplasm but does not pass through organic membranes ; cp. *crystalloid.*

collum collet (L. *collum*, the neck), the plane of junction of plumule and radicle ; that part of a plant where stem and root join ; syn. *neck* ; cp. *faux, caudicule.*

coloured (L. *color*, tint), of any other colour than green : —**sepals,** when petaloid, not herbaceous.

colpenchyma (Gr. *kolpos*, a fold ; *engchuma*, an infusion), tissue of sinuous or wavy cells.

colubrine (L. *coluber*, a snake), snake-like in appearance ; cp. *anfractuose.*

columella (L. a little column), the persistent placental axis of certain septicidal capsules, as in Rhododendron ; cp. *carpophore.*

column (L. *columna*, a pillar), a solid body formed by the union of the styles and filaments, as in Orchideæ, or by the filaments alone ; cp. *tube, phalange* : **columnar,** pillar-shaped.

coma (L. the hair of the head), a tuft of soft hairs especially those on a seed, as in Asclepiadeæ ; tufted bracts of the pine-apple ; the crown of foliage of a tree : **comate comose,** furnished with tufts of long soft hairs ; cp. *aspergilliform, stupose.*

comb-like, *ctenoid, pectinate.*

commissure (L. *commissura*, a joining together), the point or plane of union of two parts ; the face by which two carpels cohere, as in cremocarps.

common, belonging equally to many ; syn. *general* ; cp. *partial, primary* : —**petiole,** the rachis of a compound leaf to which the leaflets, if not sessile, are attached by petiolules or *partial petioles.*

comose, see under *coma.*

compact (L. *compactus*, compressed), with the parts set close together, as in some kinds of inflorescence ; syn. *close* ; cp. *lax, diffuse.*

complanate (L. *complano*, I level), flattened in any direction ; cp. *applanate, explanate, compressed.*

complete (L. *completus*, perfect), having all the parts belonging to it or to the type ; cp. *incomplete, perfect* : —**flower,** one that has calyx, corolla, stamens and pistil.

complexive (L. *con*, together ; *plecto*, I fold), folded over another both at the sides and at the apex, as some leaves in bud ; cp. *amplexous, equitant.*

complicate (L. *complico*, I fold together), folded upon itself ; cp. *conduplicate, plicate, etc.*

composite (L. *compono*, I bring together), with two or more parts or organs forming a whole ; see *compound* : —**cyme,** see *cyme* : —**flower,** one made up of several florets in a head ; see *capitulum* : — **family,** Compositæ.

compound (L. *con*, together ; *pono*, I place), similar parts which together form a common whole ; see *composite* ; cp. *simple, single* : —**flower,** a head of flowers, as in Compositæ ; syn. *anthodium* : —**fruit,** see *aggregate* : —**inflorescence,** one in which the flowers when clustered are composed of racemes developed in cymose order or *vice versâ*, the general arrangement being of one type, the partial of another ; cp. *botrycymose, cymo-botryose, thyrsus, mixed panicle* : —**leaf,** one divided into two or more distinct blades (leaflets) : —**pistil,** one consisting of two or more coalescent carpels ; see *syncarpous* : —**umbel,** a general umbel the rays of which bear partial umbels or umbellets, as in most Umbelliferæ.

compressed (L. *compressus*, from *comprimo*, I press together), flattened lengthwise or laterally ; cp. *obcompressed, depressed, complanate.*

con- (L. *com, cum*, with), prefix.

concatenate (L. *catena*, a chain), linked together ; syn. *catenulate.*

concaulescence (L. *caulis*, a stem), the coalescence of axes, as a pedicel with a main axis, the former above the normally subtending leaf ; cp. *recaulescence.*

concave (L. *concavus*, vaulted), with a rounded hollow ; cp. *convex* : **concavo** —, in comp. hollow : —**concave,** concave on both sides ; cp. *lenticular* : —**convex,** concave on one side convex on the other ; syn. *meniscoid* ; cp. *plano-concave* : **concavous,** hollow.

concentric (L. *centrum*, the middle), arranged around a common centre : adj. **concentrically.**

conceptacle (L. *concipio*, I hold together), a term for the double follicle of Asclepiadeæ and Apocynaceæ ; a hollow sac containing spores, in Cryptogamia.

conchiform (L. *concha*, a mussel shell ; *forma*, shape), in the shape of one valve of a bivalve shell ; cp. *cochleate.*

concinnus (L. well put together), neat, elegant.

concolorous (L. *color*, colour), of the same or of uniform colour; syn. *isochrous*; cp. *discolorous*.

concrete (L. *cresco*, I grow), grown or growing together; syn. *accrete*; cp. *discrete*: n. **concretion.**

conduplicate (L. *conduplicatus*, doubled), folded once lengthwise upon itself; cp. *complicate, etc.*

cone (L. *conus*, a cone), the scaly multiple fruit of the Fir, Pine, Hop, etc.; syn. *strobile*; cp. *galbulus*: **conic conical** in the form of a cone, broad and round at base and tapering to apex: **conifer** (L. *fero*, I bear), a cone-bearing plant belonging to the Nat. Ord. Coniferæ: **conoid conoidal**, cone-like: **coniferous**, cone-bearing.

conenchyma (Gr. *konos*, a cone; *enchuma*, tissue), tissue of conical cells.

conferruminate (L. *con*, together; *ferrumino*, I cement), so closely united that no line of separation is traceable; said of cotyledons united by their adjacent faces, as in the Horse Chestnut.

confertus (L.), closely packed.

confluent (L. *con*, together; *fluo*, I flow), blending into one, as certain anther-cells by obliteration of the normal partitions or contiguous walls.

conform conformed (L. *con*, with; *forma*, shape), fitting closely, as the seed coat to the albumen or nucleus of some seeds.

congeners (L. *con*, together; *genus*, a kind), species nearly allied in all essential characters.

congenital (L. *congenitus*, born together), existing from birth or from the beginning, as an Iris leaf, equitant below, conduplicate above, but congenitally united to form a sword-shaped blade.

congested (L. *congestus*, a collecting), heaped together; syn. *coacerrate*; cp. *coarctate, agglomerate.*

conglobate (L. *globum*, a ball), collected into a ball.

conglomerate (L. *glomus*, a ball of thread), densely heaped together; cp. *congested, coacervate.*

conglutinate (L. *gluten*, glue), glued together in heaps; cp. *agglomerate, congested, etc.*

coniferous, see under *cone*.

conjugate (L. *jugum*, a yoke), coupled; in single pairs: —**pinnate**, with the primary divisions of a compound leaf a single pair at the apex of the petiole, and the leaflets pinnately arranged on these; cp. *jugate.*

connate (L. *nascor* I grow), said of similar organs or parts when congenitally united; cp. *distinct, adnate*: —**perfoliate**, said of opposite sessile leaves the bases of which are congenitally united around the stem or supporting axis; cp. *amplexicaul, perfoliate, peltate.*

connective (L. *con*, together; *necto*, I bind), that portion of a stamen that connects the two lobes of an anther.

connivent (L. *conniveo*, I wink), having the parts or organs arching over or converging at apex, as sepals, petals or anthers in the centre of the flower; cp. *declinate.*

conocarp (Gr. *konos*, a cone; *karpos*, fruit), a name for an aggregate fruit like that of the raspberry; syn. *æterio, drupetum*; see *aggregate*: **conopodium** (Gr. *pous*, a foot), a conical receptacle; cp. *discopodium.*

conoid, see under *cone.*

consolidated (L. *solidus*, solid), said of unlike parts when intimately united; cp. *adnate, connate.*

constant (L. *constans*, steady), said of a character found uniformly present in all plants belonging to one species; cp. *inconstant.*

constricted (L. *constringo*, I bind together), suddenly reduced in width; cp. *contracted.*

contemporary (L. *con*, together; *tempus*, period of time), produced or flourishing at the same time.

contiguous (L. *tango*, I touch), touching.

continuous (L. *continuus*, uninterrupted), without joints or articulations.

contorted (L. *tortus*, twisted), twisted in one direction upon itself; syn. (in æstivation) *convolute, obvolute*: **contortion**, abnormal twisting, as of some branches: **contortuplicate** (L. *plicatus*, folded), folded and also twisted; cp. *conduplicate, gyrose.*

contracted (L. *contractio*, a drawing together), shortened in length or breadth; cp. *constricted, diffuse.*

contrary (L. *contra*, against), in an opposite direction.

convergent (L. *con*, together; *vergo*, I incline), drawing together; said of ribs

of leaves curved from base to apex ; cp. *divergent, curvi-nerved.*

convolute (L. *con,* together ; *volutus,* rolled), rolled upon itself laterally or lengthwise ; in vernation or æstivation with one margin of each leaf within and the other margin without the coil ; syn. *contorted, etc.*; cp. *supervolute* : **—imbricate,** syn. *cochlear* ; cp. *sub-convolute, sub-imbricate, quincuncial.*

copious (L. *copia,* plenty), abundant ; said of albumen when large compared with the embryo ; cp. *scanty.*

coppice copse (Gr. *koppades,* trees cut down), a wood of small trees with brushwood ; a wood composed of stems sprung from the bases or stumps of felled trees ; see *virgultum, stool-shoots.*

coracine (Gr. *koraks,* a crow), deep shining black ; cp. *atrous, pullous* : **coracoid** (Gr. *eidos,* likeness), like a crow's beak ; cp. *rostrate.*

coralliform coralline coralloid (Gr. *korallion,* L. *coralium,* coral ; Gr. *eidos,* likeness),.like red coral ; cp. *isidiose.*

corculum (L. dim. of *cor,* the heart), the embryo ; syn. *germ, cor seminis.*

cord (L. *chorda,* string), the string-like process that connects some seeds with the placenta ; syn. *funicle.*

cordate (L. *cor,* the heart), said of the base of a leaf when of two broad lobes on either side the petiole ; a term sometimes applied to a heart-shaped leaf ; cp. *auriculate:* **cordiform** (L. *forma,* shape), heart-shaped, *i.e.,* ovate, acute at apex and cordate at base.

coriaceous (L. *corium,* leather), tough, of leathery consistence ; cp. *chartaceous, etc.*

cork (L. *cortex,* bark), the material composing the highly developed outer layer of the bark of the cork oak : **corky,** of the texture of cork ; syn. *suberose* : **—layer or envelope,** the outer layer of bark between the epidermis and mesophlœum ; syn. *epiphlœum* ; cp. *cortex.*

corm (Gr. *kormos,* a stem), the solid fleshy subterranean base of certain stems usually naked or with membranous or few investing scales, as in colchicum ; syn. *lecus, bulbodium, bulbo-tuber* ; cp. *bulb, tuber.*

cormophyte (Gr. *kormos,* a stem ; *phuton,* a plant), a plant with stem, root, foliage, etc ; cp. *thallophyte.*

cornel family, Cornaceæ.

cornu (L.), a horn-like process ; cp. *calcar*: **cornute corniculate,** with horn-like processes : **corneous,** of the texture of horn ; syn. *chitinous* : **cornigerous** (L. *gero,* I bear), bearing horn-like processes.

corolla (L. a small wreath), the inner whorl of flower-leaves composed of petals ; cp. *calyx, perianth* : dim. **corollula** : **corollaceous corolline,** pertaining to or resembling the corolla : **corolliferous** (L. *fero,* I bear), bearing a corolla : **corolliflorous** (L. *flos,* a flower), having the petals free from the calyx and bearing the stamens : cp. *calycifloral.*

corona (L. a crown), a crown-like appendage at the summit of an organ ; a ray-like or cup-like (ligular) process from the inner face of the petals, or from the throat of the corolla (corolline), or from the stamens (staminal) ; cp. *paracorolla, nectary* : dim. **coronula** : adj. **coronate : coroniform** (L. *forma,* shape), shaped like a crown.

corpuscle corpusculum (L. *corpusculus,* a small body), the gland on the stigma of Asclepiadeæ ; a small independent mass of protoplasm embedded in the general protoplasm of the cell ; see *chlorophyll corpuscle.*

correlated (L. *con,* with ; *relatum,* brought back), standing in a near relation with respect to the principal parts, as all the species of a genus.

corrugate corrugated (L. *corrugo,* I wrinkle), said of ordinarily plane surfaces irregularly wrinkled like the petals of a poppy ; syn. *crimped, crumpled* ; cp. *sulcate, plicate.*

cor seminis (L. heart of the seed), the embryo ; syn. *germ, corculum.*

cortex (L.), the bark ; see *periblem* ; cp. *cork* : **cortical,** relating to the bark : **corticate,** having a bark or bark-like covering : **corticolous** (L. *colo,* I cultivate), growing on bark ; syn. *epiphytic* ; cp. *culmicolous* : **corticose,** full of bark.

cortinate (L. *cortina,* a veil), with the texture of a cobweb ; veil-like ; syn. *arachnoid* ; cp. *byssoid, velate.*

corydaline (Gr. *korudalos,* the lark), spurred like the flowers of corydalis ; cp. *calcarate.*

corymb (Gr. *korumbos,* the top of a cluster), a flower-cluster of the botryose type with relatively short rachis and with the pedicels of unequal length attaining

nearly the same level, the top of the cluster being flat or convex; a *fastigiate panicle*; cp. *raceme, umbel*: **corymbose**, corymb-like, a term sometimes wrongly applied to inflorescences of the cymose type.

cosmetic (Gr. *kosmetikos*, skilled in adorning), having the property of rendering the skin soft; used for beautifying the complexion.

cosmopolitan (Gr. *kosmos*, the world; *polites*, a citizen), found over almost the entire world; cp. *endemic*.

costa (L., a rib), the central rib of a leaf; syn. *midrib*: **costate**, in comp. ribbed, as *tricostate*, q.v.; cp. *unicostate*: **costal**, relating to the midrib: —**nerved**, with the nerves or veins of a leaf proceeding from the midrib; cp. *basal-nerved*: —**cirrhose**, with midrib projecting or excurrent and modified as a tendril.

cottony, *gossypinous*.

cotyledons (Gr. *kotuledon*, a cup-like hollow), the seed lobes or leaves of the embryo borne on the caulicle, usually two, rarely more, in Dicotyledons, one in Monocotyledons, wanting in some species, as in Cuscuta: **cotyledonous**, having a seed-lobe or lobes.

cotyliform (L. *cotula*, a measure of capacity; *forma*, shape), round dish-shaped with raised border; cp. *calathiform*.

crampons (Fr. hooks, claspers), the adventitious aerial roots, sometimes called suckers, of some climbers, as the ivy.

cranberry family, Vacciniaceæ.

cranesbill or **geranium family**, Geraniaceæ.

crass (L. crassus, solid), thick and fleshy.

crateriform (L. *cratera*, a large bowl; *forma*, shape), bowl-shaped, concave with hemispherical outline, or more shallow; see *calathiform*.

creeper, a popular term for climber: **creeping**, said of stems or branches that grow on or somewhat under ground and root as they grow; syn. *repent*; cp. *rhizome*.

cremocarp (Gr. *kremao*, I suspend; *karpos*, fruit), a fruit consisting of two achene-like or samara-like dry one-seeded carpels (mericarps) invested by the tube of an epigynous calyx, separating entire at maturity, and suspended from a carpophore; the characteristic fruit of Umbelliferæ; syn. *carpadilium, diachænium*; cp. *schizocarp, carcerule*; see *commissure*.

crenate (L. *crena*, a notch), with rounded teeth; syn. *crenelled, scalloped*; cp. *dentate, serrate, repand, sinuate*: dim. **crenulate**: **crenæ crenatures**, the minute notches or sinuses of a crenate leaf.

crenelled, see *crenate*.

crepitant (L. *crepo*, I rattle), crackling.

crescentic (L. *cresco*, I grow), shaped like the moon in its first quarter; curved, broad in the centre and tapering at the ends; syn. *meniscoid*; cp. *arcuate, acinaciform, lunate, falcate*.

crested cristate (L. *crista*, the comb of a cock), with a ridge, tuft or crest-like elevation on the surface; cp. *alate, aristate, carunculate, strophiolate*.

cretaceous (L. *creta*, chalk), chalky-white; abounding in or consisting of chalk; cp. *calcareous, argillaceous, gypseous*.

cribrose cribriform (L. *cribrum*, a sieve; *forma*, shape), pierced with holes like a sieve; syn. *ethmoid*; cp. *fenestrate, etc.*: **cribriform cells**, sieve cells the walls of which contain slits for intercommunication; see *bast*.

cricoid (Gr. *krikos*, a ring; *eidos*, likeness), ring-shaped; cp. *annulate, armillate*.

crimped, *corrugate*.

crinite (L. *crinis*, hair), with a tuft of long weak hairs; cp. *aspergilliform, etc.*

cristate, see *crested*.

crithmum (L.), barley.

crocate croceous (L. *croceus*, saffron), deep reddish-yellow; cp. *luteous*.

cross cross-breed (L. *crux*, a cross), a variety resulting from the interbreeding of varieties or races of the same species; syn. *mistus*; cp. *hybrid, nothus*: **cross-fertilisation**, the fecundation of a flower by the pollen of another flower; *near*, when the latter is on the same plant; *remote*, when it is on another plant; *most remote* when it is on a plant of another race of the same species thus producing a cross-breed; syn. *allogamy*; cp. *close-fertilisation, autogamy*: **cross-pollination**, the deposition on the stigma of pollen from another flower.

crowfoot family, Ranunculaceæ.

crown (L. *corona*), the summit: —**of the root**, the upper portion of a root-stock:

—**of corolla or stamens**, see *corona*: **crowned**, *coronate*: **crowning**, borne upon the summit.

cruciate cruciform (L. *crux*, a cross; *forma*, shape), in the form of a St. Andrew's cross; cross-wise; see *decussate*: **cruciferous** (L. *fero*, I bear), having flowers with four petals arranged cross-wise, as in the crucifer family (Cruciferæ); see *staurophyllous*.

crude (L. *crudus*, raw), a term applied to the ascending sap; cp. *elaborated*.

cruentous (L. *cruor*, blood), blotched with red; blood-red.

crumpled, *corrugate*.

crura (L. *crus*, the leg), the divisions of a forked tooth; see *furcate*, *bicruris*.

crustaceous crustose (L. *crusta*, rind, shell or bark), hard and brittle; having the appearance of hoar frost; cp. *chartaceous*, *pruinose*.

cryptogamous (Gr. *kruptos*, hidden; *gamos*, marriage), without true flowers, *i.e.*, without either stamens or pistil, or true seeds, the fructification consisting of spores; syn. *agamous*; cp. *phanerogamous*: **Cryptogamia**, one of the two main divisions of the Vegetable Kingdom comprising "flowerless plants," *i.e.* Ferns, Horse-tails, Club-mosses, Mosses, Fungi, Lichens, and Sea-weeds.

crystalloid (Gr. *krustallos*, ice; *eidos*, likeness), a crystal-like mass of proteid; an inorganic nitrogenous substance forming a part of protoplasm, of crystalline form, and capable of passing through organic membranes; cp. *colloid*.

ctenoid (Gr. *kteis*, gen. *ktenos*, a comb), with a border of rigid teeth like a comb; cp. *pectinate*.

cucullate cucullary cuculliform (L. *cucullus*, a hood; *forma*, shape), having a hood or cowl-like pocket; cp. *calyptrate*, *etc.*

culm (L. *culmus*, a stalk), the characteristic hollow and jointed stem of grasses, bamboos, etc; cp. *haulm*, *rhizome*: **culmicolous** (L. *colo*, I cultivate), growing on culms; cp. *corticolous*.

cultrate cultriform (L. *culter*, a knife; *forma*, shape), like a straight broad knife; cp. *acinaciform*, *etc.*

cuneate cuneiform (L. *cuneus*, a wedge; *forma*, shape), wedge-shaped; said of leaves or other flat bodies that are broad at apex and narrow at base; cp. *sphenoid*.

cuniculate (L. *cuniculus*, an underground passage or burrow), pierced with a long passage; cp. *canaliculate*.

cup-shaped, *acetabuliform*, *calathiform*, *crateriform*, *cupular*, *cyathiform*, *poculiform*, *scyphiform*.

cupule (L. *cupula*, a little vessel, from *cupa*, a cask), a cup-like involucre of thickened bracts around or enclosing the nut of the oak (acorn-cup or glans) and of the chestnut (bur); the leaf-like involucre of the hazel (husk); the bract-like cup which encloses the nut or nuts in many Amentaceæ: **cupular cupuliform** (L. *forma*, shape), acorn-cup-like; cup-shaped: **cupulate**, provided with or subtended by a cupule: **cupuliferous** (L. *fero*, I bear), bearing cupules, as in Cupuliferæ, the oak and chestnut family.

curvembryonic (L. *curvus*, bent; *embruon*, a fœtus), having the embryo curved.

curvinerved (L. *curvus*, bent; *nervus*, a nerve), said of a leaf when the nerves proceed from the midrib (*i.e.*, are costal not basal) and are curved in their course; cp. *rectinerved*, *convergent*.

curviserial (L. *curvus*, bent; *series*, a row), in curved ranks; cp. *rectiserial*.

cushion, *pulvinus*: **cushion-shaped**, *pulvinate*.

cusp (L. *cuspis*, the head of a spear), a long and rigid termination thick at base and tapering; cp. *acumen*, *etc.*: **cuspidate**, gradually tapering to a rigid point; cp. *acuminate*, *acidote*, *mucronate*, *spinescent*.

custard-apple family, Anonaceæ.

cut, *cleft*, *incised*: **cutting**, a severed portion of a stem bearing one or more buds and used for propagating, the lower cut end being placed in the earth; syn. *talea*, *virgultum*; cp. *graft*, *budding*.

cuticle (L. *cuticula*, dim. of *cutis*, the skin), the outermost layer of the epidermis, a surface film formed by the cutinised outer surface of epidermal cells; cp. *pellicle*, *dermatogen*: **cuticular cutaneous**, belonging to or relating to the cuticle; **cuticularised**, forming an outermost layer.

cyaneous (Gr. *kuanos*, dark blue), bright blue; cp. *azure*: **cyanic**, blue with varying degrees of red; cp. *glaucous*.

cyathiform cyathoid (L. *cyathus* Gr. *kuathos*, a cup; *eidos*, likeness),

wine-cup-shaped; like an inverted hollow cone; see *cup-shaped.*

cycas family, Cycadaceæ.

cycle (Gr. *kuklos,* a circle), a circle or whorl; a complete spiral in the arrangement of leaves round the stem, the last leaf being directly over the first; see *verticil*; cp. *helix, spire*: **cyclic cyclical,** coiled in a circle; arranged in or relating to a cycle or whorl; syn. *verticillate*; cp. *spiral*; **cyclosis,** the circulation in the milky juice of certain plants: **cyclogen** (Gr. *gennao,* I produce), see *exogen.*

cylindrical (Gr. *kulindros,* a roller), long with circular cross-section: **cylindrenchyma** (Gr. *engchuma,* an infusion), tissue composed of cylindrical cells.

cymbæform cymbiform (L. *cymba,* a boat; *forma,* shape), *boat-shaped,* q. v.

cyme (Gr. *kuma,* a wave), an inflorescence in which the main axis and all the lateral axes are each terminated by a flower and the flowering proceeds from the centre outwards and downwards: **cymose,** of the type of such inflorescence, including the forms, *pleiochasium, dichasium,* and *monochasium,* q. v.; syn. *determinate, definite, descending, centrifugal, terminal*; cp. *botryose*: **cymo-botryose,** a mixed inflorescence in which cymes are arranged in botryose order, as in Labiatæ; see *thyrsus*; cp. *botry-cymose*: **composite cyme,** a compound cyme, the ultimate parts arranged in a cymose manner; a form of compound inflorescence: **corymbose cyme,** a cymose inflorescence resembling a corymb, in form, not in character: **cymose raceme** or **spike,** see *monochasium.*

cynarrhodon (Gr. *kuon,* a dog; *rhodon,* a rose), a fruit like that of the rose, hollow, fleshy, and enclosing achenes; cp. *hip.*

cyphellate (Gr. *kuphella,* cup-like hollows), with minute cup-shaped depressions.

cypsela (Gr. *kupsele,* a chest), a dry 1-celled 1-seeded fruit (achene) invested with adnate calyx, as in Compositæ; cp. *diplotegia, caryopsis.*

cyst (Gr. *kustis,* a bladder), a rounded cell or cavity: **cystoid** (Gr. *eidos,* likeness), resembling a cyst.

cystolith (Gr. *lithos,* a stone), a cell containing crystalline concretions of carbonate of lime lying loose or attached to small projections of cellulose, as in the epidermis of the leaves of Ficus: **cystose,** containing cysts.

cytoblast (Gr. *kutos,* a cell; *blastano,* I bud), the nucleus of a vegetable cell; see *nucleus*: **cytoblastema,** see *protoplasm*: **cytogeny** (Gr. *gennao,* I produce), cell-formation: **cytoplasm** (Gr. *plasma,* formed), the cell-protoplasm as distinct from the nucleus; the part surrounding the nucleus of a protoplast.

D

dacryoid (Gr. *dacrima,* a tear; *eidos,* likeness), pear-shaped; syn. *pyriform.*

dactylose (Gr. *daktulos,* a finger), finger-shaped; cp. *digitate.*

dædalous (Gr. *daidalos,* entangled), irregularly jagged; cp. *laciniate*: **dædal-enchyma** (Gr. *engchuma,* an infusion), tissue of entangled cells, as in some fungi.

dagger-shaped, *pugioniform.*

dammer dammar, an aromatic resinous exudation yielded by Dammer australis and D. orientalis; the "white dammer" or Indian copal by Vateria indica; see *resin-dammer.*

damping off, premature death of young plants due to excessive moisture in the soil or air.

dasyphyllous (Gr. *dasus,* hairy, rough; *phullon,* a leaf), woolly-leaved; syn. *codio-, erio-phyllous.*

daughter cells, those which arise from the divisions of other cells.

dealbate (L. *dealbo,* I whitewash), whitened with powder or minute pubescence; cp. *albescent, etc.*

deca (Gr. *deka,* ten), prefix.

decagynous (Gr. *gune,* a female), with ten styles or sessile stigmas.

decamerous (Gr. *meros,* a part), having ten parts or members to each whorl of the flower.

decandrous (Gr. *aner,* a male), with ten stamens.

decapetalous (Gr. *petalon,* a petal), with ten petals.

decasepalous (Gr. *sepalon,* a sepal), with ten sepals.

deceptive (L. *decipiens*), tending to mislead by variety of form; syn. *decipiens, fallax.*

deciduous (L. *de,* down; *cado,* I fall), falling away from, as some petals im-

mediately after the fecundation of the flower; cp. *caducous, marcescent, persistent*: —**trees,** those that shed all their leaves once annually and are bare before the new leaves appear; cp. *evergreen.*

decipiens (L.) *deceptive.*

declinate (L. *de,* down; *clino,* I lean), bent to one side; not erect; syn. *inclined*; cp. *decurved, connivent, reclinate.*

decoction (L. *de,* down; *coctum,* baked), the extraction of the medicinal properties of a plant by boiling it in water; the resultant liquid; cp. *infusion.*

decompound decomposite (L. *de,* down; *compono,* I bring together), said of a compound leaf the divisions and subdivisions of which are also compound; several times compound, as the leaves of Oroxylum indicum; syn. *supercomposite.*

decorticate (L. *cortex,* the bark), deprived of the bark; to remove the fibrous bark; (cp. *degum*).

decorus (L.), beautiful, graceful.

decumbent (L. *de,* down; *cubo,* I lie), trailing along the ground with the end ascending; cp. *procumbent, reclining, assurgent.*

decurrent (L. *de,* down; *currens,* running), produced down, as the blade of a sessile leaf down the stem below the point of insertion forming a winged appendage (sterigma), or as a sessile stigma down the carpel; syn. *palaceous*: **decursively,** in a decurrent manner.

decurved (L. *de,* down; *curvus,* bent), bent or directed downward; cp. *deflexed.*

decussate (L. *decusso,* I divide crosswise), said of leaves arranged on the stem in pairs alternately at right angles: **decussating,** crossing at right angles: **decussative** in the form of a cross; cp. *cruciate.*

dedoublement deduplication (L. *de,* down; *duplico,* I double), see *chorisis.*

definite (L. *definio,* I bound; from *finis,* a limit), particular; limited as to number, shape, extent or character: —**stamens,** not exceeding twelve; cp. *polyandrous*: —**inflorescence,** see *cymose*: —**ovules** or **seeds,** few and constant in number: —**fibro-vascular bundles.** isolated and closed at both ends as in Monocotyledons, not continuous: —**growth,** that continued by the prolongation of the main stem or stems; cp. *indefinite*; **definition,** description or explanation; clearness of contour or outline: **definitive nucleus,** that formed in the embryo-sac by the fusion of two nuclei one from each end, and from which the endosperm originates.

deflexed (L. *de,* down; *flecto,* I curve), bent downward with a gradual and continuous curve; cp. *recurved, decurved, declinate.*

deflorate (L. *deflorare,* to despoil), said of a plant that has shed its blossoms, and of a flower that has shed its pollen.

defoliate (L. *folium,* a leaf), having shed the leaves; cp. *denudate*: **defoliation,** the shedding of leaves by a fissile articulation at the junction with the stem; cp. *foliation.*

deformed (L. *forma,* shape), of unusual form or structure; syn. *difformed*; cp. *degenerate.*

degeneration (L. *genus,* race), deterioration of development, as scales in place of leaves: adj. **degenerate**; cp. *deformed, reduced, depauperate.*

degum, to remove the resinous matter or mucilage from fibre after decortication cp. *decorticate.*

dehiscence (L. *dehisco,* I split open), mode of opening at maturity of a seed-vessel to discharge its seeds, or of an anther to discharge its pollen: said to be *normal* or *regular* when the pericarp opens by vertical slits or apical pores along the sutures of the carpels (see *septicidal, loculicidal*); and *abnormal* or *irregular* when the opening is transverse (*circumscissile*) or by slits or valves not corresponding to the regular sutures: v. **to dehisce: dehiscent fruits,** those which open at maturity to disjoin the carpels or discharge the seed, as legume, loment, follicle, capsule, pyxis, siliqua; cp. *indehiscent, dessilient.*

deliquescent (L. *deliquesco,* I dissolve), becoming divided into many branches; said of stems growing by development of lateral buds (the main stem being arrested by flowering or failure of terminal shoot), and of inflorescences so much divided by branching that the main axis is undistinguishable; cp. *excurrent.*

deltoid (Gr. *delta,* the letter Δ; *eidos,* likeness), triangular in outline or in section, as certain succulent leaves; cp. *triquetrous.*

demersed (L. *demergo,* I sink), growing under water; syn. *submersed.*

demissous (L. *demitto,* I lower), hanging down; syn. *pendulous.*

demulcent (L. *demulceo*, I stroke gently), having a softening or soothing property.

dendritic dendroid (Gr. *dendron*, a tree; *eidos*, likeness), tree-like; irregularly branched: **dendrology** (Gr. *logos*, a discourse), the natural history of trees.

deni (L.), by tens.

denigrate (L. *niger*, black), blackened.

denizen (O. E. *denizein*, not a native but made a citizen), a naturalised or acclimatised introduced species; cp. *aboriginal*.

dense (L. *densus*, thick), compact, close together, as the flowers in some flower-clusters; cp. *loose*: **densely pubescent**, covered with a thick indumentum of soft short hair; cp. *pubescent*.

dentate (L. *dens*, a tooth), toothed with the margin cut into triangular salient teeth directed outward not foward nor backward; cp. *serrate*, *runcinate*, *odontoid*: dim. **denticulate**: n. **denticulation**.

denudate (L. *nudus*, bare), become bare; stripped of its appendages.

deobstruent (L. *de*, down; *obstruo*, I obstruct), a medicine for opening the natural passages of the body by removing obstructions.

deodorant (L. *de*, down; *odor*, an odour), a substance capable of removing evil odours or vapours from the air; a disinfectant: n. **deodoriser**.

deorsum (L.), downwards; cp. *sursum*.

depauperate depauperated (L. *de*, down; *pauper*, poor), impoverished; stunted in shape or weakened owing to unfavourable surroundings; cp. *degenerate*.

dependent (L. *de*, down; *pendeo*, I hang), hanging down; syn. *demissous*, *pendulous*, *nutant*.

deplanate (L. *planus flat*), flattened or expanded; cp. *applanate*, *complanate*, *explanate*.

depressed (L. *de*, down; *pressum*, pressed), said of a solid flattened from above downwards; syn. *applanate*; cp. *compressed*.

depurant (L. *purus*, clean), having the property of purifying the blood.

dermatogen (Gr. *derma*, skin; *gennao*, I produce), the outermost layer of plants at apex of stem or root developing into the epidermis; see *meristem*, *periblem*; cp. *cuticle*, *pellicle*: **dermatoid dermoid** (Gr. *eidos*, likeness), skin-like.

descending (L. *de*, down; *scando*, I climb), tending downward; turned gradually downward; cp. *deflexed*: —**axis**, the root as contrasted with the stem: —**inflorescence**, see *cymose*: —**radicle**, see *inferior*; cp. *ascending*.

desiccant (L. *siccus* dry), drying; a medicine for drying a sore: **desiccate**, to dry or become dry: n. **desiccation**; syn. *arefaction*; **desiccated**, dry.

detergent (L. *tergeo*, I wipe clean), a medicine used for cleansing wounds and ulcers; syn. *abluent*, *abstergent*.

determinate (L. *terminus*, a limit), limited: —**inflorescence**, see *cymose*; cp. *indeterminate*.

deustate deustous (L. *uro*, I burn), as if scorched; syn. *ustulate*; see *brand*; cp. *præustate*, *exanthematous*.

dextrine (L. *dexter*, the right hand), a gum-like substance of quaternary composition formed in cells, and intermediate between mucilage and starch.

dextrorse (L. *dextrorsus*, towards the right; from *dexter*, right) turning, twining or overlapping from left to right as viewed from outside or (by some botanists) as viewed from within the coil; cp. *sinistrorse*, *heterodromous*.

dew-rust, blotchy discolouration of leaves caused by dew; cp. *brand*, *exanthema*.

di dis (Gr. two, twice, double), prefix.

diachenium (Gr. *chaino*, I open), a double achene; syn. *cremocarp*.

diachyma (Gr. *dia*, through; *chumos*, juice), cellular tissue between the surface layers of leaves; syn. *diploe*, *mesophyllum*.

diadelphous (Gr. *adelphos*, a brother), said of stamens united by their filaments into two sets, bundles or phalanges; cp. *mono-*, *tri-*, *poly-*, *is- adelphous*.

dialycarpous (Gr. *dialuo*, I part asunder; *karpos*, fruit), of separate carpels; syn. *apocarpous*: **dialy—**, separate or distinct: —**petalous**, —**phyllous**, —**sepalous**, see *polypetalous*,— *phyllous*, —*sepalous*.

dialysis (Gr. *dialusis*, a separation or dissolution; from *dia*, through; *luo*, I loose), the separation of parts usually united; cp. *chorisis*.

diandrous (Gr. *aner*, a male), with two stamens only in the flower.

diaphanous (Gr. *dia*, through; *phaino*, I show), semi-transparent; syn. *translucent*, cp. *hyaline*.

diaphoretic (Gr. *dia*, through; *phoreo*; I bear), a medicine which induces or increases perspiration; syn. *sudorific*.

diaphragm (Gr. *diaphragma*, a partition wall), a dividing membrane; syn. *septum*; cp. *dissepiment, phragma*.

diaphysis (Gr. *dia*, through; *phuo*, I produce), a prolongation of the inflorescence.

diastase (Gr. *diastasis*, a separation), a solid white vegetable substance found in oats, potatoes, etc., and in buds, and operating to convert their starch into sugar; cp. *invertin*.

diastole (Gr. *dia*, through; *stello*, I place), the rhythmic contraction and dilatation of a vacuole or cell.

diatom (Gr. *diatomos*, cut in two), a single marine vegetable organism enclosed in a bivalved siliceous coat; see *frustule*: **diatomin**, the brown pigment of diatoms.

dicarpellary (Gr. *dis*, twice; *karpos* fruit), with two carpels or pistils; cp. *didymo-carpous, digynous*.

dice-shaped, *astragaloid*.

dichasium (Gr. *dicha*, in two parts), a cymose flower-cluster with two lateral axes; a dichotomous or biparous cyme; cp. *pleiochasium, monochasium*.

dichlamydeous (Gr. *dis*; *chlamus*, a garment), having two envelopes to the flower; calyx and corolla; cp. *a-* and *mono-chlamydeous*.

dichogamous (Gr. *dicha*, in two parts; *gamos*, marriage), said of a hermaphrodite flower the stigma and anthers of which do not mature at the same time, and the flower cannot be self-fertilised; cp. *synanthesis*; n. **dichogamy**; *syn. heteracmy*.

dichotomous (Gr. *dicha*, in two parts; *tomé*, a cutting), having the divisions always forked or in pairs; cp. *furcate, forcipate, tri-, poly-chotomous*: —**cyme**, see *dichasium*.

diclesium (Gr. *dis*, twice; *kleio*, I shut), said of an achene enclosed in a pericarp formed of a free indurated portion of the perianth, as the fruit of Mirabilis.

diclinous (Gr. *kline*, a bed), having the stamens in one flower and the pistil in another; syn. *unisexual, separated*; cp. *hermaphrodite, monoclinous*.

dicoccous (Gr. *kokkos*, a nutlet), with two dry one-seeded indehiscent carpels; a schizocarp with two cocci.

dicotyledonous (Gr. *kotuledon*, a cup-like hollow), having two seed-leaves or lobes; cp. *monocotyledonous*: **Dicotyledonæ**, one of the main divisions of phanerogamia or flowering plants.

didymosis (Gr. *didumos*, two-fold), the union of two similar organs; cp. *cohesion*: **didymous**, slightly two-lobed with rounded lobes; in pairs: —**anthers**, in pairs; cp. *didynamous*: **didymocarpous**, with two partially united carpels.

didynamous (Gr. *dis*, twice; *dunamis*, force), said of a flower with two long and two short stamens; cp. *didymous, tetradynamous*.

diffluent (L. *dis*, asunder; *fluo*, I flow), dissolving; capable of dissolving.

difformed (L. *dis*, away from; *formis*, shape), of unusual form or structure syn. *deformed*.

diffract (L. *dis*, asunder; *fractus*, broken), separated by fissures into distinct areolæ.

diffuse (L. *dis*, abroad; *fusus*, spread), widely spreading; syn. *patent*; cp. *brachiate, patulous*: — **stems**, procumbent and also very much and loosely branched.

digamous (Gr. *dis*, twice; *gamos*, marriage), with male and female flowers in the same cluster; cp. *heterogamous*.

digitalis (L. *digitus*, the finger), the foxglove: **digitaliform** (L. *forma*, shape), like the corolla of the fox-glove.

digitate (L. *digitus*, a finger), lobed or divided so that the sinuses reach the apex of the petiole or point of insertion; compound with the leaflets all borne on the apex of the petiole; syn. *palmate, actinophyllous*: — **pinnate**, the same with the leaflets pinnate: **digitately**, in a digitate manner: **digitipartite**, syn. *palmatipartite*.

digynous (Gr. *gune*, a female), having two separate styles or carpels; cp. *dicarpellary*.

dilamination (L. *dis*, asunder; *lamina*, a blade), see *median-chorisis*.

dilated (L. *dis*, asunder; *latus*, a side), expanded in all directions.

diluent (L. *dis*, asunder; *luo*, I wash), a medicine taken to quench the thirst or cool the blood.

dimerous (Gr. *dis*, twice; *meros*, a part), said of a flower with two parts or members in each whorl or circle; see *binary*.

dimidiate (L. *dimidium*, half), divided into two unequal parts: — **anther**, one with one cell perfect, the other wanting or abortive: — **leaf**, one with the parts

on either side the midrib unequal; imperfectly halved: — **oblong**, dimidiate with oblong outline.

dimorphous dimorphic (Gr. *dis*, twice; *morphe*, shape), having two forms of hermaphrodite flower produced by the same species, as often in Rubiaceæ: **dimorphism**, the condition of being dimorphous; this is *heterogonous* when the petals are similar in both kinds, but the stamens and pistil are reciprocally different in length; cp. *trimorphism, heteromorphic.*

dingy, of a dull colour.

dicœcious (Gr. *dis*, twice; *oikos*, a house), unisexual with the male and female flowers on separate plants: **dicœcio-polygamous**, with male, female and hermaphrodite flowers, but with a tendency to become dicœcious; syn. *polygamo-dicœcious*; cp. *monœcious.*

diosmosis, see *osmosis.*

dipetalous (Gr. *petalon*, a petal), having only two petals.

diphyllous (Gr. *phullon*, a leaf), with only two leaves; syn. *bifoliate.*

diplecolobous (Gr. *dis*, twice; *pleko*, I fold; *lobos*, the lobe of the ear), said of cotyledons twice-folded transversely.

diploe (Gr., a fold), the interior tissue of a leaf; syn. *diachyma, mesophyllum*: adj. **diploic.**

diplostemonous (Gr. *diploos*, double; *stemon*, the warp of a loom), having two whorls or circles of stamens each of the same number as the petals, the outer stamens alternating with the petals; cp. *haplo-, obdiplo-stemonous*; n. **diplostemony.**

diplotegium diplotegia (Gr. *diploos*, double; *tegos*, a covering), a name for an inferior capsule, *i.e.*, one invested with adnate calyx, as in Campanula; cp. *cypsela.*

dipterous (Gr. *dis*, twice; *pteron*, a wing), two-winged; **dipterocarpous** (Gr. *karpos*, fruit), with the carpel two-winged, two or more of the lobes of the calyx enlarged in fruit; cp. *pterocarpous.*

diremption (L. *dirimo*, I separate), see *chorisis.*

disc disk (L. *discus*, a quoit), (1) development of the receptacle of the flower as a cushion, cup, ring or glands within the calyx or within the stamens and corolla and below the ovary (hypogynous) around it (perigynous) or upon it (epigynous;) (2) the central portion of a flower-head as distinguished from the border or **ray**; (3) the face of an organ as distinguished from the margin; (4) a quoit-like marking: **discoid disciform** (Gr. *eidos*, likeness; L. *forma*, shape) disc-like, depressed in the centre or flat, and circular: **disciferous** (L. *fero*, I bear), disc bearing: **discifloræ**, plants with the receptacle which bears the flowers usually disc-like: **disc-florets** those borne on the central portion of a capitulum or flower-head; cp. *ray-florets*: **discoid head**, a flower-head with disc flowers only; cp. *discopodium.*

dischidia (Gr. *dis*, twice; *schizo*, I split), a climbing genus of Asclepiadeæ with the leaves sometimes converted into pitchers; cp. *ascidium.*

discifloræ (L. *discus*, a quoit; *flos*, a flower), one of the three main divisions of Polypetalæ in which the receptacle is usually disc-like, not elongated as in Thalamifloræ, and also bears the petals and stamens; cp. *Calycifloræ.*

discolorous (L. *discolor*, of different colours, as squares upon a chessboard), with the upper surface of a leaf of one and the under surface of another colour; cp. *con-, bi-colorous, parti-, versi-coloured, variegated*: **discoloured**, the natural colour altered: **discolouration**, *chromatosis.*

discopodium (Gr. *diskos*, a disc; *pous*, a foot), a disc-shaped receptacle of flowers; cp. *conopodium, discoid head.*

discrete (L. *dis*; asunder; *cresco*, I grow), separated; distinct, not confluent nor connate; cp. *concrete.*

disepalous (Gr. *sepalon*, a sepal), with only two sepals.

disinfectant (L. *dis*, asunder; *inficio*, I stain), a substance having the property of removing the evil qualities of foul or infective matter; cp. *antiseptic.*

disintegration (L. *dis*, asunder; *integer*, entire), the resolution of a body into its constituent parts.

displacement (L. *dis*, asunder; Fr. *place*, a place), the shifting of places of insertion of members so that the members of successive whorls come immediately above one another.

dissepiment (L. *dissepio*, I hedge off), the partitions of an ovary or pericarp, in the direction of its length, consisting of the contiguous faces of two carpels; this is *false* or *spurious* when the partition is otherwise formed, as by an outgrowth from the dorsal suture or from the placenta; cp. *septum, diaphragm, phragma.*

dissilient (L. *dissilio*, to leap apart), bursting asunder, like the seed-vessels of Euphorbiaceæ ; cp. *dehiscent, resilient.*

dissimilar (L. *dis*, not ; *similis*, like), unlike : —**parts**, parts unlike in form or colour : —**organs**, organs unlike in function.

distant (L. *dis*, asunder ; *stans*, standing), situated or inserted at marked intervals ; syn. *remote.*

distended (L. *distendo*, I stretch), swollen, as the internodes of some plants ; syn. *inflated, tumid, turgid* ; cp. *ventricose, etc.*

distichous (Gr. *dis*, two ; *stichos*, a row), arranged in two opposite vertical rows ; syn. *bifarious* ; cp. *biseriate.*

distinct (L. *distinctus*, separated ; from *distinguo*, I divide), said of similar parts or organs entirely separate from each other ; not connate ; syn. *separate* ; cp. *remote, solutus, free, manifest.*

distractile (L. *dis*, asunder ; *traho*, I draw), torn asunder ; carried far apart, as anther-cells by the lateral expansion of the connective, as in Salvia ; syn. *trajectile* ; cp. *divaricate.*

distribution (L. *dis*, asunder ; *tribuo*, I divide), see *habitat.*

dithecous (Gr. *theké*, a case), two-celled, as most anthers, *i.e.*, with two thecæ ; syn, *bilocular.*

ditrichotomous (Gr. *dis*, twice ; *triché*, threefold ; *tome*, a cutting), divided into three, and each division again divided into three ; cp. *trichotomous.*

diuretic (Gr. *diourio*, to pass water), causing a flow of urine.

diurnal (L. *diurnus*), daily ; lasting for one day ; cp. *nocturnal, ephemeral.*

divaricate (L. *dis*, asunder; *varicus*, straddling), spreading widely apart : — **anthers**, those placed end to end so as to form one line at right angles to the filament ; cp. *basifixed, distractile*: — **branches** those proceeding from the stem at a wide or obtuse angle.

divergent diverging (L. *dis*, apart ; *vergo*, to be inclined), inclined away from each other ; radiating from a common centre : **divergence**, see *angular divergence.*

diversifoliate (L. *diversus*, different ; *folium*, a leaf), having different kinds of stem-leaves ; syn. *heterophyllous.*

divided (L. *divido*, I separate), severed completely into distinct parts ; syn. —*sected* in comp., as *trisected*, divided completely into three segments ; cp. *dissected, parted, cleft, lobed.*

dodecagynous (Gr. *dedeka*, twelve ; *gune*, a woman), with twelve distinct styles or carpels.

dodecamerous (Gr. *meros*, a part), with twelve parts or members in each whorl of the flower.

dodecandrous (Gr. *aner*, a male), with twelve stamens, or any number from twelve to nineteen ; cp. *definite, polyandrous.*

dodrantalis (L. *dodrans*, three-fourths), a length of nine inches ; a *span.*

dogbane family, Apocynaceæ.

dolabriform (L. *dolabra*, an axe ; *forma*, shape), axe-shaped.

dolicho- (Gr. *dolichos*, long), prefix.

dormant (L. *dormio*, I sleep), quiescent with potential not active growth ; with the function of growth temporarily suspended as in the case of buds in winter ; cp. *latent, nascent* : — **eyes** or **buds**, those which are formed in the leaf-axils but which remain functionless sometimes for years until stimulated into activity by some cause ; syn. *reserve buds.*

dorsal (L. *dorsum*, the back), relating to, or attached to, the back ; cp. *ventral* : — **suture**, that line which answers to the midrib of the carpel ; syn. *outer suture* : — **dehiscence**, the opening of a carpel along the dorsal suture ; syn. *loculicidal* : — **raphe**, one turned away from the ventral suture, as in many pendulous anatropous ovules ; syn. *averse* : **dorsiferous** (L. *fero*, I bear), borne on the back : **dorsifixed**, said of an anther attached to the top of the filament by a part, not the whole, of the back ; syn. *retrofixed* ; cp. *adnate, incumbent, medifixed, versatile.*

dotted, see *punctate.*

double, said of a flower the petals of which are abnormally increased in number at the expense of the other organs ; syn. *flos plenus* ; cp. *single, plenus.*

down, the fine soft covering or indumentum formed by short hairs set close together ; syn. *pubescence* : **downy**, *pubescent.*

drastic (Gr. *drastikos*, active), acting as a violent purgative.

drepanium (L. a sickle), a cymose form of inflorescence in which the lateral axes

are in the same plane as the main axis and in successive generations always on the upper side of the supporting axis ; a uniparous sickle-shaped cyme ; see *monochasium* ; cp. *rhipidium, anthela.*

drooping, *pendulous, cernuous.*

drupe (L. *drupa,* an olive), an indehiscent succulent fruit resulting from a single carpel or from a syncarpous ovary, the outer portion of the pericarp becoming fleshy or pulpy (the *sarcocarp*), the inner bony or crustaceous (the *putamen*) ; a stone-fruit ; cp. *berry, pome, tryma, nut* : dim : **drupelet** : **drupetum,** an aggregation of drupes, as in Rubus ; syn. *æterio, conocarp, erythrostomum* ; cp. *follicetum, baccetum* : **drupaceous,** like or relating to a drupe.

dry, not succulent.

duckweed family, Lemnaceæ.

duct (L. *duco,* I lead), tubular vessels usually found in fibro-vascular tissue, marked with lines or dots, and formed by a row of cells which have lost their partitions, *i.e.,* by fusion or by the separation of cells (see *lacuna*) ; syn. *vessel.*

dulcis (L. sweet), agreeable to the sight or taste.

dumetose dumose (L. *dumus,* a thorn bush ; *dumetum,* a thicket), bushy ; syn. *fruticose, shrubby.*

duplex duplicate (L. *duo,* two ; *plico,* I fold), two-fold ; double : **duplication,** doubling of the ordinary number of parts or organs ; cp. *deduplication* ; **duplicato-serrate,** with two sets of serratures of unequal size on the same leaf margin.

duplo- (L. *duplus,* double), prefix.

duramen (L. hardness, from *durus,* hard), the heart-wood of exogenous stems ; cp. *alburnum.*

duriusculous (L. *durus,* hard), somewhat hard or rigid.

dwarf, *humilis, nanus, pumilus, pygmæus.*

dyclesium, see *diclesium.*

dysentery (Gr. *dus,* badly ; *entera,* the bowels), a disease of the bowels causing a flow of blood and mucus ; see *antidysenteric.*

dysophyllous (Gr. *dus,* badly ; *phullon,* a leaf), with fœtid leaves.

dysoxylon (Gr. *xylon,* wood), with fœtid wood.

dysuria (Gr. *ouron,* urine), difficulty in voiding urine ; see *diuretic.*

E

e ex (L. without ; out of), prefix ; syn. Gr. *a an.*

ear (of grasses), *spikelet* : **eared,** *auriculate.*

ebony family, Ebenaceæ.

ebracteate (L. *e,* without ; *bractea,* a thin plate of metal), without bracts : dim. **ebracteolate.**

eburneous, eborine (L. *ebur,* ivory), ivory white ; white tinged with yellow, and with wavy lustre.

ecalcarate (L. *e,* without ; *calcar,* a spur), spurless.

ecblastesis (Gr. *ek,* out of ; *blastos,* a shoot), monstrous development of buds within flowers, or in inflorescences.

eccremo- (Gr. *ekkremes,* hanging down), prefix.

echinate (L. *echinus,* a hedge-hog), set all round with sharp bristles ; syn. *tribuloid* ; cp. *erinous, hispid, lappaceous, muricate* : dim. **echinulate.**

ectoplasm (Gr. *ek,* out of ; *plasma,* formed), the thin outer and firmer layer of protoplasm in a cell ; cp. *endoplasm.*

edentate edentulate (L. *e,* without ; *dens,* a tooth), without teeth.

edulis (L.), edible.

eel-shaped, *anguilliform.*

effete (L. *effetus,* barren), functionless from age.

efflorescence (L. *effloresco,* to bloom), the time or state of flowering ; syn. *anthesis.*

effuse (L. *effusus,* poured out), very widely spreading ; syn. *patentissimus* ; cp. *diffuse, profuse.*

eforeolate (L. *e,* without ; *forea,* a pit), smooth ; without pits or depressions.

egg-shaped, *ovate.*

eglandular eglandulose (L. *e,* without ; *glans,* an acorn), without glands.

egranulose (L. *granum,* a grain), without granules.

elaborated (L. *elaboratus,* worked up), a term applied to the descending sap ; cp. *crude.*

elaterium (Gr. *elaterion,* the juice of a wild cucumber), the sediment of the expressed juice of the wild cucumber which is very drastic.

elatus (L.), lofty; syn. *procerus*.

elementary (L. *elementum*, a first principle), *rudimentary*.

eleutheropetalous (Gr. *eleutheros*, separate: *petalon*, a petal), with distinct petals; syn. *chori-*, *dialy-*, *poly-petalous*.

elevated (L. *e*, out of; *levo*, I raise), said of leaf-nerves when raised above the surface of the blade; syn. *prominent*.

ellipsoid ellipsoidal (Gr. *ellipsis*, a defect; *eidos*, likness), elliptical solid: **elliptic**, oblong with rounded ends.

elongate elongated (L. *e*, out; *longus*, long), much lengthened: **—style**, one produced beyond the stamens.

emarcidate (L. *marceo*, I wither), flaccid; withered; syn. *wilted*; cp. *marcescent*, *tabescent*.

emarginate (L. *e*, out of; *margo*, the margin), with a decided terminal notch, as the apex of some leaves; cp. *retuse*, *obcordate*.

embracing (L. *brachium*, the arm), clasping at the base; cp. *amplexous*, *equitant*.

embryo (Gr. *em*, in; *bruon*, I shoot), the rudimentary plantlet in the seed consisting of a plumule and radicle or caulicle, with or without cotyledons: **—cell**, the cell at the end of the suspensor which gives rise to the embryo or most of it: **embryonal embryonic**, relating to the embryo; rudimentary: **—vesicle**, the rudimentary cell formed within the embryo-sac, from which the embryo developes; syn. *germinal vesicle*: **embryo-sac**, the large cell of the nucleus of the ovule in which the embryo originates and which encloses the embryo and amnios; syn. *amniotic sac*, *vitellus*: **embryology** (Gr. *logos*, a discourse), the study of the embryo and its development: **embryogeny** (Gr. *gennao*, I produce) the formation of the embryo.

emerald green, *smaragdinous*.

emergent (L. *emergo*, I come forth), protruding through the bark; cp. *erumpent*.

emersed (L. *e*, out of; *mersum*, sunk), raised above the surface of the water, as the upper part of some aquatic plants; cp. *submersed*.

emetic (Gr. *emeo*, I vomit), that which produces vomiting.

emmenagogue (Gr. *emmena*, the menses; *ago*, I lead), a medicine for promoting the menstrual flow.

emollient (L. *mollis*, soft), an external application for softening a part and allaying irritation; cp. *emulsion*.

emphysematous (Gr. *emphusema*, inflammation), distended with air; cp. *inflated*, *etc.*

empty (AS. *æmtig*, vacant), void of the usually contained material, as an anther without pollen (*cassus*), a flower without either stamens or pistil (*cenanthous*), or a stem without pith (*inane*).

emulsion (L. *e*, out of; *mulgeo*, I milk), a milky or oily liquid used internally as a medicine for softening or soothing; cp. *emollient*: **emulsin**, a nitrogenous compound found in some oily seeds, as in almonds.

enation (L. *e*, out of; *natus*, born), the growth of adventitious lobes or appendages; outgrowths from the surface of an organ.

encipient (L. *en*, in; *capio*, I take), a preparation used as a vehicle to render the taking of medicine more easy and palatable.

encysted (Gr. *en*, in; *kustis*, a bladder), enclosed in a cyst or globose cell or sac; composed of cysts.

endecagynous (Gr. *endeca*, eleven; *gunê*, a female), with eleven distinct styles or carpels.

endecandrous (Gr. *endeca*, eleven; *aner*, a male), with eleven stamens.

endemic (Gr. *en*, in; *demos*, people), confined to a particular locality; cp. *cosmopolitan*, *sporadic*, *epidemic*.

endo- (Gr. *endon*, within), prefix.

endocarp (Gr. *karpos*, fruit), the inner layer of the pericarp, as the shell of the cocoanut, stone of the mango, the tough membrane between the seeds and fleshy part of an apple, etc.; cp. *mesocarp*, *epicarp*.

endochrome (Gr. *chroma*, colour), colouring matter of cells, except green.

endogenous (Gr. *gennao*, I produce), increasing by internal growth, as the stems of palms, and not by addition of external layers of tissue; cp. *exogenous*: n. **endogens**; syn. *monocotyledons*.

endophlœum (Gr. *phloios*, bark), the innermost layer of bark, outside the zone of new wood growth called the cambium layer; syn. *liber*; cp. *mesophlœum*, *epiphlœum*.

endophytal endophytic (Gr. *phuton*, a plant), growing within another plant

but not necessarily parasitic; syn. *entophytal*; cp. *epiphytal*: n. **endophyte.**

endoplasm (Gr. *plasma*, formed), the soft granular inner protoplasm of a cell; cp. *ectoplasm.*

endopleura (Gr. *pleuron*, a side), the inner coat of the seed; syn. *tegmen*; cp. *episperm, exopleura, sarcoderm.*

endorhizal (Gr. *rhiza*, a root), with roots protruding through a sheath (*coleorhiza*) at the base of the radicle, as in most monocotyledons: n. **endorhizæ**; syn. *endogens, monocotyledonæ.*

endosmose endosmosis (Gr. *osmos*, an impulse), the inward current established between fluids of different density when these are separated by a membrane of living tissue; cp. *exosmose, osmose.*

endosperm (Gr. *sperma*, a seed), the inner albumen of the seed, that produced within the embryo-sac or vitellus; cp. *perisperm.*

endostome (Gr. *stoma*, a mouth), the orifice of the inner coat of the ovule; see *foramen*; cp. *exostome.*

endothecium (Gr. *theké*, a box), the inner lining of an anther-lobe or cell; cp. *exothecium.*

enervate enerved (L. *e*, without; *nervus*, a nerve), without visible ribs, nerves or veins in the leaf.

enneagynous (Gr. *ennea*, nine; *gunė*, a female), with nine styles or carpels.

enneandrous (Gr. *ennea*, nine; *aner*, a male), with nine stamens.

ennobling, a term for budding or grafting.

enodal (L. *e*, without; *nodus*, a knot), without nodes or joints; see *node.*

ensate ensiform (L. *ensis*, a sword; *forma*, shape), in the shape of a broad sword; syn. *xiphoid*; cp. *acinaciform, etc.*

entire (L. *integer*, whole) having an even untoothed margin; see *edentate.*

entomophilous (Gr. *entoma*, insects; *philos*, loved), said of flowers invariably fertilised by pollen conveyed by insects; cp. *anemo-, zoo-, ornitho-philous.*

entophytal (Gr. *entos*, within, *phuton*, a plant), growing within other plants or within the bodies of animals, as certain parasites; syn. *endophytal*: n. **entophyte.**

envelope (L. *en*, in; *velo*, I fold), a part, organ, or layer of tissue forming a fold or wrapper: **floral envelopes**, the calyx and corolla: **corky envelope**, the outer layer of the bark; cp. *epiphlœum.*

enzyme (Gr. *en*, in; *zumé*, a ferment or leaven), a general term for all the unorganised ferments found in seeds, etc., as diastase, pepsin, etc.; see *ferment.*

epanody (Gr. *epanodos*, a return), the return of a flower from an irregular to a regular form; cp. *epistrophy.*

ephemeral (Gr. *epi*, upon; *hemera*, a day), lasting for only a brief period, a few hours or only a day; said of flowers which fade in a day; cp. *diurnal, evanescent, fugacious.*

epi- (Gr. upon), prefix.

epiblastema (Gr. *blastano*, I germinate; *blastos*, a shoot), an outgrowth from the surface of leaves: **epiblast**, the first (undeveloping) leaf in the plumule of grasses.

epiblema (Gr. *blema*, a wound), the epidermis of the extremities of roots.

epicalyx (Gr. *kalux*, a cup), a whorl of bracts below the calyx resembling an additional calyx, as in Malvaceæ; syn. *calyculus.*

epicarp (Gr. *karpos*, fruit), the outer layer of the pericarp, as the skin of berries; cp. *exocarp, endocarp, mesocarp.*

epichilium (Gr. *cheilos*, the lip), the apex or terminal portion of the labellum of an orchid when the labellum is articulated or in two parts; cp. *hypochilium.*

epiclinal (Gr. *kliné*, a bed), situated or inserted on the disc or receptacle of a flower: **epicline**, the nectary of a flower when situated on the receptacle.

epicoralline (L. *corolla*, a small wreath), inserted upon the corolla; cp. *epipetalous.*

epicotyl (Gr. *kotulé*, a hollow), the portion of an embryo, or of a seedling, above the cotyledons; cp. *hypocotyl.*

epidemic (Gr. *demos*, the people), prevailing generally throughout a locality; cp. *endemic, sporadic.*

epidermis (Gr. *derma*, skin), the outermost layer or skin of plants, and consisting of flattened cells; cp. *pellicle*: **epidermoid** (Gr. *eidos*, likeness), like the epidermis: **epidermic**, pertaining to the epidermis.

epigæous epigeal (Gr. *gé*, the earth), growing above on or close to the ground; cp. *hypogæous.*

epigynous (Gr. *gune*, a female), growing upon, inserted on, or adnate to, the top of the ovary; cp. *hypogynous*, *perigynous*.

epileate (L. *pileus*, a cap), with the upper lip of a bilabiate flower suppressed; syn. *apillary*.

epinasty (Gr. *nastos*, pressed together), the bending over (nutation) of an organ when the growth is more rapid on the inner, upper, or ventral side than on the other; cp. *hyponasty*.

epipetalous (Gr. *petalon*, a petal), borne on or adnate to the petals, a term applied to the stamens; cp. *epicoralline*.

epiphlœum (Gr. *phloios*, bark), the outermost layer of bark between the mesophlœum and the epidermis; syn. *periderm*, *corky envelope*; cp. *endophlœum*: adj. **epiphlœdal**.

epiphyllous (Gr. *phullon*, a leaf), attached to or growing upon a leaf; syn. *suprafolious*.

epiphyte, pl. **epiphytes epiphyta** (Gr. *phuton*, a plant), a plant attached to, but not nourished by, another plant; syn. *ærophyte*; cp. *parasite*: adj. **epiphytic**; syn. *corticolous*; cp. *epizoic*.

epipterous (Gr. *pteron*, a wing), winged at the summit.

episepalous (Gr. *sepalon*, a sepal), inserted upon the sepals, as the petals in Calyciflorœ.

epispastic (Gr. *spao*, I draw), a substance which excites blisters when applied to the skin, as Cantharides.

episperm (Gr. *sperma*, seed), the outer coat of the seed; syn. *testa*, *exopleura*; cp. *endopleura*, *sarcoderm*.

epistaminal epistemonous (Gr. *stemon*, the warp of a loom), inserted on the stamens, as the petals in Malvaceæ.

epistomeous (Gr. *stoma*, a mouth), spigot-shaped.

epistrophy (Gr. *strophé*, a turning), the return from a monstrous or irregular form to a normal one; cp. *epanody*.

epitropous (Gr. *tropé*, a turning), said of an anatropous ovule which when erect has raphe averse, and when pendulous has raphe adverse; cp. *apotropous*, *heterotropous*.

epizoic (Gr. *zoön*, an animal), growing upon animals; cp. *epiphytic*.

eplicate (L. *e*, not; *plico*, I fold), not plaited or folded.

epunctate (L. *pungo*, I prick), not pricked with small holes or dots.

equal (L. *æquus*, equal), alike in number, length or size; cp. *unequal*, *dimidiate*, *oblique*.

equitant (L. *equitans*, riding), said of two-ranked leaves, or leaves in bud, when folded lengthwise on their middle, the outer ones at their base folding over or bestriding the inner; cp. *amphlexous*, *conduplicate*.

erect (L. *erectus*, raised up), standing upright; see *vertical*:—**ovule**, one rising upright from the base of the ovary: **erecto-patent**, erect and then spreading.

eremacausis (Gr. *erema*, gently; *kausis*, a burning), the slow decomposition of animal or vegetable matter.

eremo- (Gr. *eremos*, solitary), prefix.

erianthous (Gr. *erion*, wool; *anthos*, a flower), with woolly flowers.

ericetinous (L. *erice*; Gr. *erike*, heath), growing on heaths.

erinous (L. *erinus*), prickly; rough with sharp points; cp. *echinate*, *exasperate*.

erio- (Gr. *erion*, wool), prefix.

eriopetalous (Gr. *petalon*, a petal), with woolly petals.

eriophorous (Gr. *phorein*, I bear), woolly; wool-bearing; syn. *lanigerous*; cp. *tomentose*.

eriophyllous (Gr. *phullon*, a leaf), with woolly leaves; syn. *dasyphyllous*, *codiophyllous*.

eroded erose (L. *erosus*, gnawed away), with an irregularly toothed margin; cp. *lacerate*, *laciniate*.

erostrate (L. *e*, not; *rostrum*, a beak), not beaked.

errhine (Gr. *en*, in; *rhis*, the nose), producing a discharge from the nose; a substance that causes sneezing.

erumpent (L. *e*, out of; *rumpo*, I break), breaking out; cp. *emergent*.

erythrine (Gr. *eruthros*, red), red.

erythro- (Gr. *eruthros*, red), prefix.

erythrophyll (Gr. *phullon*, a leaf), the red colouring matter or sap-pigment of leaves; cp. *chloro-*, *xantho-phyll*.

erythrostomum (Gr. *stoma*, a mouth), name given to an aggregate fruit like that of the raspberry; syn. *æterio*, *conocarp*, *drupetum*.

escape, any plant ordinarily under cultivation but found growing wild owing to the dispersion of the seed by natural agencies.

escharotic (Gr. *eschara*, a scab), having the property of burning or searing the flesh.

esculent (L. *esculentus*, edible; from *esca*, food), suitable for food; cp. *oleraceous*.

esquamate (L. *squama*, a fish scale), without scales.

essential (L. *essentia*, being), indispensably necessary; particular:—**oil**, the natural oil contained in parts of certain plants: —**organs**, those absolutely necessary for the discharge of a function, as the stamens and pistil for reproduction.

estivation, see *æstivation*.

estrophiolate (L. *strophiolum*, a little crest), without crest-like appendages on the raphe of the seed.

esurial (L. *esurio*, I hunger), appeasing hunger.

etærio, see *æterio*.

etherial (L. *æther*, the upper or pure air), very volatile, as many of the oils of plants to which most of the odours of flowers are due.

etiolated (Fr. *etioler*, to blanch), blanched; rendered colourless; made pale by the absence of light; cp. *albescent*: n. **etiolation**; cp. *albinism*.

eu- (Gr. well), an emphatic or intensive prefix; placed before a sub-order or section of sub-order means that the section bears specially the characteristics of the sub-order, e.g., *Eucæsalpineæ*.

euphylla (Gr. *phullon*, a leaf), true leaves, *i.e.*, foliage leaves.

evacuant (L. *e*, out of; *vacuus*, empty), a medicine used for producing a voiding or discharge: **evacuation**, emptying or discharge.

evalvular (L. *e*, without; *valvæ*, folding doors), not opening by valves.

evanescent (L. *vanesco*, I vanish), disappearing early; syn. *fugacious*; cp. *ephemeral*: —**nerves**, those which do not reach the margin of the leaves.

evening primrose family, Onagraceæ.

evergreen, said of trees which are never wholly devoid of foliage, the new leaves appearing before the old leaves have fallen; cp. *deciduous*.

everted (L. *e*, out of; *verto*, I turn), directed out or backward; protruding from a cavity; cp. *declinate*, *evolute*: n. **eversion**.

evittate (L. *e*, without; *vittæ*, fillets), not striped; without *vittæ*, q.v.

evolute (L. *e*, out; *volvo*, I roll), rolled back or outward; cp, *everted*, *declinate*.

ex- (L. out of, without), prefix.

exalate (L. *ala*, a wing), wingless.

exalbuminous (L. *albus*, white), without albumen, the food-material of the seed being stored in the embryo itself; cp. *albuminous*.

exanthema pl. **exanthemata** (Gr. a blossom), eruptions or blotches on the surface of leaves; cp. *dew-rust*: adj. **exanthematous**; cp. *deustate*, *etc*.

exaristate (L. *arista*, an awn), awnless; syn. *muticous*.

exasperate (L. *asper*, rough), rough with hard projecting points; cp, *asperous*, *scabrous*, *erinous*.

excavate (L. *cavus*, hollow), hollowed into broad deep pits; cp. *lacunate*, *scrobiculate*, *foveate*, *guttate*.

excentric (L. *centrum*, the centre),, out of the centre or axis; syn. *abaxial*, cp. *unilateral*.

excoriation (L. *ex* out of; *corium*, skin), a blister-like rising or falling off of the outer layer of the end cells of glandular or capitate hairs, as in Geranium.

excrescence (L. *ex*, out of; *cresco*, I grow), a wart or gnarr on the stem of a tree.

excurrent (L. *excurrens*, running out), extending to the summit or beyond; protruding outwards: —**stems**, the main stem, an undivided trunk from which lateral branches proceed as is most Fir trees; cp. *deliquescent*, *exserted*.

exfoliate (L. *folium*, a leaf), peeling off in flakes, as the bark of some trees: n. **exfoliation**; cp. *exuviation*.

exiguous (L. *exiguus*, scanty; from *exigo*, I drive away), small, poor, scanty; syn. *inops*, *exilis*.

exilis (L. for *exiglis*), syn. *exiguous*, *inops*.

eximius (L.) remarkable; syn. *insignis*.

exintine (L. *ex*, beyond; *intus*, within), the middle coat of a pollen grain; see *extine*, *etc*.

exo- (Gr. external), prefix.

exocarp (Gr. *karpos*, fruit), the external layer of the pericarp when there are only two distinct layers ; cp. *endocarp, epidermis, epicarp.*

exogenous (Gr. *gennao*, I produce), growing by successive additions to the outer layers, as the wood of Dicotyledons ; cp. *endogenous* : n. **exogen** ; syn. *cyclogen, dicotyledon, exorhiza.*

exopleura (Gr. *pleuron*, a side), the outer coat of the seed ; syn. *testa* ; cp. *endopleura, sarcoderma.*

exorhizal (Gr. *rhiza*, a root), having the radicle not sheathed ; cp. *endorhizal* ; n. **exorhiza** ; syn. *exogen.*

exosmose (Gr. *osmos*, an impulse), the outward current established between fluids of different density when these are separated by a membrane of living vegetable tissue ; cp. *osmose, endosmose.*

exostome (Gr. *stoma*, a mouth), the orifice of the outer coat of the ovule ; see *foramen* ; cp. *endostome.*

exostosis (Gr. *osteon*, a bone), wart-like excrescences on the roots of some leguminous plants ; cp. *anbury.*

exothecium (Gr. *thekē*, a box), the outer wall of an anther lobe or cell ; cp. *endothecium.*

exotic (Gr. *exotikos*, foreign), not native ; introduced from another country ; cp. *aboriginal, indigenous.*

expectorant (L. *pectus*, the breast), a medicine inducing the expulsion of fluid or phlegm from the bronchial tubes or lungs ; cp. *sialagogue.*

explanate (L. *planus*, flat), spread out flat ; cp. *applanate, complanate, deplanate.*

exsculptous (L. *sculpo*, I carve), scooped or hollowed as if pieces had been cut out ; cp. *foveate.*

exsert exserted (L. *exsertus*, stretched out), projecting outward as anthers beyond a tubular corolla, or beyond its mouth if the limb be spreading ; syn. *proeminent* ; cp. *excurrent, included.*

exstipulate (L. *stipula*, the stalk of grass), without stipules at any time.

exterior (L.), external, outer ; cp. *interior, anterior.*

extine (L. *exter*, on the outside), the external coat of a pollen grain ; cp. *exintine, intine, intextine, perine.*

extra- (L. beyond), prefix.

extra-axillary (L. *axilla*, the armpit), growing from above, below, or on one side of, the axil ; outside of the axil ; cp. *supra-axillary.*

extravasation (L. *vas*, a vessel), the escape of a liquid from its proper vessel into the surrounding tissue.

extrorse (L. *orsus*, beginning), turned outwards, as an anther turned away from the axis of the flower and opening in the direction of the perianth ; syn. *posticous* ; cp. *introrse, retrorse.*

exutive (L. *exuo* I deprive), wanting the usual covering, as naked seeds.

exuviæ (L. from *exuo*, I take off), the cast off parts of plants : **exuviation**, the process of casting off portions of old tissue prior to renewal ; cp. *exfoliation.*

eye, a coloured blotch on a petal ; the latent or undeveloped bud of a tuberous rhizome like the potato ; the scar on a seed (syn. *hilum*) ; the depression on the summit of a drupe (syn. *oculus*).

F

fabaceous (L. *faba*, a bean), relating to or belonging to the Legume family ; syn. *leguminous.*

facial (L. *facies*, the face), said of a hilum that is on the side and not on the margin or edge of a seed.

facies (L. the external figure), the general appearance of a species ; cp. *habit.*

factitious (L. *facio*, I make), artificial.

facultative (L. *facultas*, capability), said of a saprophyte that can at certain stages of its growth develop as a parasite, and *vice versâ.*

fæcula fecula (L. *fæx*, dregs of wine, sediment), starch-like matter ; a pistillate flower ; a plant bearing only pistillate flowers ; cp. *farina.*

faint (L. *vanus*, feeble), indistinct, a term applied to nerves or veins of leaves ; cp. *strong, obscure.*

falcate (L. *falx*, a sickle), sickle-shaped ; cp. *crescentic.*

fallax (L. false), see *deceptive.*

false (L. *falsus*, from *fallo*, I deceive), apparent not real, as dissepiments formed in an ovary either transversely or by a prolongation of the placentas ; syn. *spurious* : adj. **falsely** : —**raceme**, see *monochasium.*

family (L. *familia*, a household), a common term for Natural Order, rarely for suborder or any group of allied genera.

fan-shaped, *flabellate, flabelliform.*

farctous (L. *farcio*, I stuff), as if stuffed ; not tubular ; see *tube.*

farina (L. flour), starch ; cp. *fecula* : **farinaceous,** containing, or of the texture or nature of, starch : **farinose,** covered, as with a fine white powder, with short intricate hairs readily detachable ; syn. *mealy* ; cp. *canescent, floccose, pruinose.*

fasciate (L. *fascia*, a band), said of stems flattened and expanded by monstrous growth, and resembling several stems fused together in one plane : adj. **fasciated** : n. **fasciation.**

fascicle fascicula (L. *fascis*, a bundle ; dim. *fasciculus*), a close or dense cluster : adj. **fascicled fasciculate.**

fastigiate (L. *fastigium*, the summit), clustered, nearly parallel, and pointing upward : —**panicle,** a *corymb.*

faux (L. the throat), the upper portion of a tubular or funnel-shaped corolla that lies between the limb and the tube ; syn. *mouth, throat* ; cp. *collum.*

faveolate favose (L. *favus*, a honeycomb), honey-combed ; syn. *alveolate* ; cp. *cavernous, fenestrate, fistular.*

feather-veined, *penni-veined, penni-nerved* : **feathered,** said of hairs or bristles when provided with fine hairs ; **feathery,** *plumose.*

febrifuge (L. *febris*, a fever ; *fugo*, I drive away), a medicine for reducing or removing fever.

fecula, see *fæcula.*

fecundation (L. *fecundus*, fertile) making fertile, as the ovule by contact with the pollen-tube ; the state of being impregnated ; syn. *fertilisation* : v. **to fecundate** : adj. **fecundated** ; cp. *pollinated.*

felted (L. *pileus*, a felt cap), with soft, tangled, and appressed hairs ; cp. *pannose, tomentose, strigose.*

female femineous (L. *femina*, a woman), said of a flower with pistil but no stamens ; indicated by the sign ♀ ; syn. *pistillate* ; cp. *male, neuter.*

fenestrate (L. *fenestra*, a window), having large holes or openings, as the blades of some leaves ; cp. *cribrose, foraminous, fistular, perforate, pertuse.*

ferment (L. *fermentum*, leaven ; from *ferveo*, I boil), a substance produced by the protoplasm and inducing chemical change without itself being affected, as diastase ; see *enzyme* : **fermentation,** the chemical change caused in any substance under the influence of warmth, air, and moisture.

ferox (L. fierce), much armed with spines or prickles.

ferruginous (L. *ferrum*, iron), rust-coloured ; syn. *rubiginose* ; cp. *flammeous.*

fertile (L. *fertilis* ; from *fero*, I bear), ripe ; capable of producing fruit ; **flower,** one with an ovule-bearing pistil and with or without stamens ; —**stamen,** one the pollen of which is ripe for fertilising ; cp. *sterile* : **fertilisation,** impregnation of the ovule by the pollen ; syn. *fecundation* ; cp. *pollination, fructification.*

festucine (L. *festu*, a straw), of a straw colour ; syn. *stramineous.*

fetid, see *fœtid.*

fibre (L. *fibra*), any thread-like body or process (cp. *filament*) ; a long slender branch or root ; a thick-walled tapering cell : **fibrous fibrose,** composed of fibres : —**layer of an anther,** the thickened part of the wall which brings about dehiscence : **fibril,** a small fibre : adj. **fibrillate fibrillose** : **fibro-vascular** (L. *vas*, a vessel), a tissue consisting of woody fibres and ducts or vessels : —**bundle,** a strand of fibro-vascular tissue ; cp. *vascular, cellular* ; see *sclerenchyma.*

fiddle-shaped, *panduræform.*

fig (L. *ficus*), see *syconium* : **fig and nettle family,** Urticaceæ : **fig-marigold family,** Ficoideæ : **figwort family,** Scrophularineæ.

filament (L. *filum*, a thread), a fibre-like thread ; the stalk of an anther : adj. **filamentous filamentose.**

filbert-shaped, *nuciform.*

filiform (L. *filum*, a thread ; *forma*, shape), thread-like ; slender ; cp. *acicular, piliform, setuliform* : **filipendulous** (L. *pendeo*, I hang), suspended by a thread ; cp. *funiculate.*

fimbriate (L. *fimbriæ*, a fringe), having a fringe or border of fine thread-like processes : dim. **fimbrillate** ; cp. *ciliate, laciniate.*

fingered, see *digitate.* **finger-shaped,** *dactylose.*

fir or **pine family,** Coniferæ : **fir-rape family,** Monotropeæ.

fissile (L. *fissus*, from *findo*, I cleave), tending to become split or divided : **fissous fissured,** cleft ; cp. *rimate* : n. **fission fissure.**

fissiparous (L. *fissus*, cleft ; *pario*, I produce), reproduced by division of one body into two ; propagated by division of cells ; cp. *gemmiparous, proliferous, viviparous.*

fistular fistulose (L. *fistula*, a tube), hollow throughout ; tubular ; full of holes ; porous ; cp. *farctous, foraminous, perforate.*

flabellate flabelliform (L. *flabellum*, a fan ; *forma*, shape), fan-shaped : **flabelli-nerved,** with straight radiating nerves.

flaccid (L. *flaccus*, languid), soft, flabby, wanting in stiffness ; cp. *rigid.*

flagellate (L. *flagellum*, a whip, a vine-shoot), producing long slender tendril-like branches that root at tip ; syn. *sarmentose, viticulose* ; cp. *stoloniferous, vimineous* : **flagellum,** a slender stolon, q.v. ; syn. *runner* : **flagelliform** (L. *forma*, shape), runner-like ; whip-like, tapering and supple.

flammeous (L. *flamma* a flame), flame-coloured, bright red or scarlet ; syn. *igneous* ; cp. *ruber, rubiginose, cinnabarine.*

flattened, in any direction, *complanate* ; horizontally, *applanate, explanate* ; from above, *depressed* ; lengthwise or laterally, *compressed* ; antero-posteriorly, *ob-compressed* ; flattened and two-edged, *ancipital.*

flavicant flavous (L. *flavus*, yellow), pale or golden yellow ; cp. *aurantiaceous, aurate* : **flavescent,** yellowish, becoming yellow.

flax, the fibrous inner bark of Linum usitatissimum ; see *xylem, bast* : **flax** or **flaxwort family,** Lineæ : **flaxen,** flax-like ; fair, long and flowing.

fleshy, thick and succulent ; cp. *oleaginous.*

flexile (L. *flexus*, a bending, from *flecto*, I bend), capable of being bent but firm and elastic ; syn. *vimineous* : **flexuous flexuose,** full of windings and turnings, wavy, zigzag ; cp. *tortuose, gyrose, sinuous.*

floating, *fluitans, natans.*

floccose (L. *floccus*, a lock of wool), woolly with locks or tufts of soft hair ; cp. *lanate, farinose* : dim. **flocculant flocculose.**

flora (L. *Flora*, the goddess of flowers), the plants of a country considered collectively ; a systematic description of such plants : dim. **florula.**

flos plenus (L.), a double flower, *i.e.*, one with petals increased in number at the expense of the other parts of the flower : **in flore pleno,** with double flowers.

floss (It. *floscio*, flaccid), the silky down in the husks of some seeds.

flower (L. *flos*, gen. *floris*), the reproductive organ of a plant with its appendages ; a term often limited to the corolla or whorl of petals : **flower-bud,** an unexpanded blossom : **flowering plants,** those that have flowers with stamens or pistil or both ; syn. *Phanerogamia* ; cp. *Cryptogamia* : **flowering glume,** the outer of the two chaffy scales which enclose the flower of a grass : **floral,** belonging to a flower : **—envelopes,** the calyx and corolla : **floret,** one of the small flowers of a flower-cluster, as in Compositæ : **floribund** (L. *abundo*, I overflow), bearing flowers in abundance : **floriferous** (L. *fero*, I bear), flower bearing : **floscule,** a floret : **floscular,** with a tubular floret.

fluitans (L.), floating ; cp. *natans.*

fluminal (L. *flumen*, a stream), growing in running streams ; cp. *aquatic, fluvial.*

fluvial fluviatile (L. *fluvius*, a stream), growing in fresh water ; cp. *aquatic, fluminal, marine.*

fœtid (L. *fœtidus*), with a strong unpleasant odour ; syn. *rank, teter, stercoraceous* ; cp. *graveolens* : n. **fœtor.**

foliate (L. *folium*, a leaf : dim. *foliolum*), having leaves : , **foliolate,** having leaflets ; see *unifoliolate* : **foliaceous,** leaf-like ; of the form and texture of a leaf : **foliage,** a cluster of leaves ; the leaves of a tree collectively : **foliiform** (L. *forma*, shape), leaf-shaped : **foliar,** relating to leaves : **foliose,** bearing numerous leaves : **foliation,** the leafing of plants ; cp. *frondescence, defoliation* : **folium fulcrans** (L.), the supporting bract of a flower.

follicle (L. *follis*, a bag ; dim. *folliculus*), a fruit of a single carpel dehiscing only by one, usually the ventral, suture ; cp. *legume* : adj. **follicular : folliceetum,** a collection of follicles ; cp. *drupetum, baccetum.*

foot-stalk, see *petiole, peduncle.*

foramen (L. an aperture, from *foro*, I pierce), the opening in the coats of the

ovule comprising the *endo* and *exo-stome*; cp. *micropyle, os* : **foraminous foraminulose**, pierced with small holes ; cp. *ostiolate, fistular, etc.*

forcipate (L. *forceps*, pincers), forked like pincers ; cp. *furcate, dichotomous.*

forest (L. *foris*, out of doors), an extensive tree-bearing tract ; cp. *wood.*

forked, *furcate.*

formosus (L.), beautiful.

fornicate (L. *fornix*, an arch), arched, as the scales in the throat or mouth of certain flowers ; syn. *vaulted.*

foveate (L. *fovea*, a pit), having shallow pits or depressions ; cp. *exsculptous, excavate, lacunate, scrobiculate, rimate, variolate.*

fovillæ (L. *foveo*, I nourish), the granules in the protoplasm of a pollen-grain.

fragile (L. *fragilis* ; from *frango*, I break), easily broken.

freckled, *lentiginose.*

free, said of unlike organs or parts when separate from each other ; not adnate ; cp. *distinct* : **—cell formation**, the formation of a cell independently and not by cell-division, as in the nucleus of an ovule ; see *fissiparous* : **—central**, said of the placenta of a one-celled ovary when forming a central ovule-bearing column arising from the base of the ovary ; cp. *basal, axile, parietal.*

fringed, *fimbriate, ciliate, laciniate.*

frogbit family, Hydrocharideæ.

frond (L. *frons*, gen. *frondis*, a leaf, leafy twig), the leaf of ferns and other Cryptogams ; the foliage of a palm ; the stems of some plants, as Lemna, Wolffia, etc.; dim. **frondlet** : **frondose**, frond-like ; bearing fronds ; leafy : **frondescence**, the conversion of flower-leaves (sepals, petals, etc.), into foliage-leaves ; cp. *foliation.*

frothy, *spumose.*

fructification (L. *fructus*, fruit ; *facio*, I make), the organs of reproduction, (cp. *flower*) ; the impregnation of the ovule by the pollen ; syn. *fecundation, fertilisation.*

fruit (L. *fructus*, from *fruor*, I enjoy), the mature ovary, its contents and persistent accessory parts ; popularly only the edible portion of such fruit.

frumentaceous (L. *frumentum*, grass), relating to grain ; cp. *gramineous.*

frustulose (L. *frustum*, a piece), consisting of fragments : **frustule**, the bivalved siliceous coat of a diatom.

fugacious fugitive (L. *fugax*, fleeting), transitory ; falling off or fading very early ; syn. *evanescent* ; cp. *caducous, deciduous.*

fulcrate (L. *fulcrum*, a prop), supported by or provided with accessory organs : **fulcrant**, stilt-like, as certain roots.

fulgid (L. *fulgeo*, I shine), shining, glittering ; syn. *lucid, nitidous.*

fuliginous (L. *fuligo*, soot), brownish-black ; of the colour of soot.

fulvous (L. *fulvus*, tawny), orange yellow ; dark reddish yellow ; syn. *cervinous* ; cp. *fuscous, tawny.*

fumatory or **fumewort family**, Fumariaceæ.

fumose fumeus (L. *fumus*, smoke) grey ish red.

funale funiliform (L. *funis*, a rope, cord ; dim. *funiculus* ; *forma*, shape), cord-like, as the roots of Pandanus : **funicle funicule**, the thread connecting the ovule or seed with the placenta ; the stalk of the ovule : syn. *podosperm* ; *spermaphore, umbilical cord* ; cp. *resticula* : adj. **funicled.**

function (L. *functus*, a performance, from *fungor*, I accomplish), the natural purpose to which a living healthy organ is devoted, as absorption performed by the roots, assimilation and transpiration by the leaves.

fundamentum (L. groundwork, basis), that portion of a seed or seedling that is below the cotyledons ; syn. *hypocotyl, radicle.*

fungose fungous (L. *fungus*, a mushroom), soft ; spongy ; of the nature or texture of fungus : **fungiform fungoid** (L. *forma*, shape ; Gr. *eidos*, likeness), fungus-like : syn. *mucedinous.*

funicle, see under *funale.*

funnel-shaped, *infundibuliform.*

furcate (L. *furca*, a 2-fronged fork), forked ; repeatedly branched : dim, **furcellate** ; cp. *bifurcate, dichotomous, forcipate.*

furfuraceous (L. *furfur*, scurf), scurfy ; covered with loose bran-like scales ; cp. *squamose, squarrose, epidote.*

furrowed, *sulcate.*

fuscous (L. *fuscus*, dark-coloured), brown or greyish- brown ; cp. *fulvous* : **fuscescent**, becoming dark-brown.

fusiform (L. *fusus*, a spindle ; *forma*, shape), spindle-shaped ; solid, tapering at both ends, and somewhat bulging at the centre ; cp. *napiform, rapaceous, turbinate.*

G

galacto-poietic (Gr. *gala*, milk ; gen. *galaktos* ; *poieo*, I make), having the property of increasing the flow of milk from the breasts.

galbulus (L.), a somewhat spherical cone-fruit with thickened and enlarged scales like that of Cypress and Juniper ; cp. *cone, strobile, syconium.*

galea (L. a leather helmet), the helmet shaped upper sepal of Aconitum or Monks-hood ; the upper lip of some bilabiate corollas : **galeate**, helmet-shaped ; syn. *cassideous* ; cp. *calyptrate, cucullate.*

galewort family, Myricaceæ.

gall (L. *galla*, an oak-apple), an excrescence or protuberance on a plant caused by some irritation, as the puncture of an insect ; syn. *cecidium* ; cp. *anbury* : **gallic acid**, an acid obtained from galls ; cp. *tannic acid.*

gamboge family, Guttiferæ.

gamo- (Gr. *gamos*, marriage), prefix.

gamogastrous (Gr. *gaster*, the belly), said of an ovary with united carpels and separate styles, or stigmas if the styles be wanting ; cp. *syncarpous.*

gamopetalous (Gr. *petalon*, a petal), having a corolla with united petals ; cp. *polypetalous.*

gamophyllous (Gr. *phullon*, a leaf), having a perianth of united leaves ; cp. *polyphyllous.*

gamosepalous (Gr. *sepalon*, a sepal), with united sepals ; syn. *synsepalous* ; cp. *polysepalous.*

gaping, *ringent.*

geitonogamy (Gr. *geiton*, adjacent ; *gamos*, marriage), the fecundation of a flower by the pollen of another flower on the same plant, a kind of allogamy ; cp. *xenogamy.*

gelatinous (L. *gelo*, I cause to freeze), of the consistence of jelly ; syn. *tremelloid.*

geminate (L. *gemini*, twins), growing in pairs ; said of leaves when given off 2 from one node, but not opposite to each other ; syn. *paired* ; cp. *sub-opposite, bigeminate, binate.*

gemma, pl.- æ (L.), a leaf-bud ; cp *alabastrum* : dim. **gemmule** : **gemmate gemmiferous** (L. *fero*, I bear), having leaf-buds ; **gemmation**, formation or growth of leaf-buds : **gemmiform** (L. *forma*, shape), shaped like a leaf-bud : **gemmiparous** (L. *pario*, I bring forth), reproducing by means of leaf-buds ; cp. *fissiparous, proliferous, viviparous.*

general (L. *genus*, a class ; pl. *genera*), belonging equally to many ; syn. *common* ; cp. *partial, primary* : **generic**, see under *genus.*

generative (L. *genero*, I beget), reproductive : **—cell**, that cell of the pollen-grain which ultimately fertilises the ovule : **—organs**, the flowers, more especially the stamens and pistil ; syn. *reproductive organs.*

geniculate (L. *genu*, the knee ; dim. *geniculum*), bent abruptly.

genitalia (L. *genetalis*, producing), the the essential organs of reproduction, *viz.*, the stamens and pistil.

genus, pl. **genera** (L. class, kind), a group of closely-related species ; the first name of a plant in binomial nomenclature ; cp. *phylum, class* : **genetic** (L. *genesis*, origin), pertaining to descent or inheritance : **—spiral**, the line passing through the points of insertion of leaves, or equivalent members, round the supporting axis, from the older to the younger members.

geoblast (Gr. *gé*, the earth ; *blastano*, I germinate), an embryo the cotyledons of which remain underground during germination.

geotropism (Gr. *gé*, the earth ; *tropé* a turning), the power or tendency of some plants to grow towards the earth.

germ (L. *germen*, a sprout), a bud ; the origin of anything ; initial growth ; the embryo; syn. *corculum, cor seminis* : **germen**, a name for the ovary : **germinal vesicle**, a cell contained in the embryo-sac and from which the embryo is developed ; syn. *embryonal vesicle* : **germination**, the development of the embryo into a plant.

gesnerwort family, Gesneraceæ.

gibber gibberosity gibbosity (L. *gibbus*, a swelling), a pouch-like swelling

or protuberance on one side; adj. **gibberous gibbous gibbose**; cp. *ventricose, saccate.*

gigantic (L. *gigas*, gen. *gigantis*, a giant), of unusual height; cp. *procerus, elatus.*

gilvous (L. *gilvus*), pale yellow with a tinge of red.

ginger and arrowroot family, Scitamineæ.

ginglymoid (Gr. *gingglumos*, a hinge; *eidos*, likeness), resembling a hinge.

glabrous (L. *glaber*, smooth), without hairs or down; cp. *smooth*: **glabrate glabrescent**, becoming glabrous: **glabriusculus**, almost glabrous; cp. *asperous, scabrous, hairy.*

gladiate (L. *gladius*, a sword), sword-shaped, either straight or curved; cp. *acinaciform, ensiform.*

gland (L. *glans*, an acorn), a swelling or excrescence of the surface, dry or secreting oil or resin; a lobe of the flower-disc, or any excrescence within the flower; an oil vesicle in the epidermis or in leaves, flowers or fruit (cp. *vittæ*): **gland dotted**, punctate with translucent glands: **glandular glanduliferous** (L. *fero*, I bear), bearing glands: **glandular-setose**, with gland-bearing bristles, as the *setæ* of Rosaceæ: **glans**, an acorn; cp. *nucule.*

glareose (L. *glarea*, gravel), growing in gravelly places; cp. *ammophilous, arenarious, sabulose.*

glaucous (L. *glaucus*, bluish-grey), with a bluish-grey or bluish-green tinge: **glaucescent**, somewhat glaucous; becoming glaucous.

glebulous (L. *glebula* a little clod), in crumb-like masses.

globose (L. *globus*, a ball), nearly spherical; syn. *spheroid*: **globular**, solid and spherical; cp. *orbicular.*

glochideous glochidiate (Gr. *glochis*, an angular point), barbed on one or both sides like an arrow, as certain bristles, hairs, etc.; syn. *barbed*; cp. *acronychious, uncate.*

glomerate glomerated (L. *glomero*, I form into a sphere; from *glomus*, a ball), compactly clustered into a round heap or head; cp. *agglomerate*: **glomerule**, a small dense head of flowers; a cyme with the florets arranged in a dense cluster, as in the globe-thistle: **glomeruliferous** (L. *fero*, I bear), bearing clusters of branching coral-like excrescences: **glomus**, see *capitulum.*

glossary (Gr. *glossa*, the tongue), dictionary of the special words or terms used in any branch of science or art: **glossology** (Gr. *logos*, a discourse), explanation of such special terms, a branch of phytography; syn. *terminology.*

glucose (Gr. *glukus*, sweet), the peculiar form of sugar found in grapes and other fruits: **glucoside**, a compound formed of glucose and an aromatic body.

gluey, *colletic.*

glumes (L. *gluma*, the husk of corn), the chaffy bract-like scales of the inflorescences of grasses and sedges, the bracts of each spikelet being the outer glumes, the bracts of each flower being a flowering glume (*valvula*) enclosing a pale; see *chaff, tegmen*: dim. **glumule** pl. **glumellæ**; syn. *paleæ*: **glumaceous**, resembling or relating to glumes.

glutinous (L. *gluten*, glue), having a sticky exudation; syn. *viscous*; cp. *mucilaginous.*

gnaur, see *knaur.*

glyptholecine (Gr. *glupho*, I groove), with wavy longitudinal grooves or canals; cp. *canaliculate, vittate.*

gonoclinic (Gr. *gonos*, offspring; *klino*, I bend), said of a hybrid when its characters are not intermediate but incline to one of the parent forms.

gongyloidal (Gr. *gonggulos*, round), having knot-like excrescences.

gonophore (Gr. *gonos*, offspring; *phorein*, I bear), a stalk or stipe elevating both stamens and pistil in a flower; an internode between stamens and corolla; syn. *gynandrophore*; cp. *androphore.*

goodenia family, Goodenoviceæ.

goose-foot family, Chenopodiaceæ.

gooti, term in India for an open-air layer formed by ringing a branch and covering the portion ringed with moist earth until roots form; cp. *layer.*

gossypinous (L. *gossypion*, the cotton tree), with long, soft matted hairs like cotton wool; syn. *cottony*; cp. *tomentose, lanuginose.*

gourd family, Cucurbitaceæ.

gracilis (L.), slender.

graduating (C. *gradus*, a step), in regular gradation or series; passing insensibly in form, etc., from one organ to

another: —**perianth**, one in which the bracts gradually merge into sepals and the sepals into petals, as in Nelumbium.

graft (L. *graphium*, a pen for writing on waxen tablets), a cutting (*scion*) from one plant inserted into a part of another (the *stock*) and nourished by it: —**hybrid**, one supposed to have been originally produced by means of a graft: **grafting**, propagating by grafts; cp. *budding*; see *ennobling*.

grain (L. *granum*, corn), the characteristic fruit of the grass family; syn. *caryopsis*: also a small hard mass; see *granulate*: —**colours**, cochineal dyes: — **of wood** (Dan. *grin*, a branch), the form or direction of the fibrous tissue.

gramineous (L. *gramen*, grass), relating to grain plants; cp. *frumentaceous*: **gramineæ**, the grass family.

grammicous (Gr. *gramma*, a letter), as if lettered; arranged in lines.

grandi- (L. *grandis*, large), prefix; syn. Gr. *macro-*; cp. L. *parvi-*.

granulate granulated granose granular granulose (L. *granum*, a grain or seed), composed of small grains or granules; of grainy texture (see *acinose*).

grape, the berry of Vitis vinifera; see *nuculanium*.

grass family, Gramineæ.

graveolens (L. *gravis*, heavy; *olens*, fragrant), with a strong odour; cp. *fœtid*.

greasy, *unctuose*.

green, *verdant*, *herbaceous*.

gregarious (L. *grex*, a flock), growing or tending to grow in groups of the same species; cp. *isolated*, *solitary*.

griseous (L. *griseus*), bluish-grey; syn. *cæsius*; cp. *glaucous*.

grooved, *sulcate*.

gross (L. *crassus*, thick), great: **grossification**, the swelling of the ovary after impregnation: **grossus**, an unripe fig; cp. *syconium*.

growing point, the mass of active cellular tissue immediately behind the root-cap in roots; cp. *spongiole*.

grown together, see *accrete*, *concrete*, *adglutinate*, *adnascent*.

grumous (L. *grumus*, a hillock), divided into clusters of grains; cp. *acervulous*, *coacerrate*.

guard-cells guardian-cells, the pair of elastic cells at the orifice of a *stomate*, q. v.

guttate (L. *gutta*, a drop), spotted as by drops: **guttulate**, composed of small dot-like vesicles; cp. *punctate*.

gymn-, *gymno-* (Gr. *gumnos*, naked), prefix; syn. L. *nudi-*.

gymnanthus (Gr. *anthos*, a flower), with naked flowers, *i.e.*, without calyx or corolla.

gymnocarpous (Gr. *karpos*, fruit), with naked fruits, *i.e.*, without accessories or appendages.

gymnospermous (Gr. *sperma*, a seed), with naked seeds, *i.e.*, not enclosed in a seed-vessel: **gymnospermæ**, a group comprising the Fir, Gnetum and Cycas families, the naked seeds of which are fertilised by direct contact with the pollen; cp. *angiospermæ*.

gyn-, *gyno-* (Gr. *gune*, a female), prefix.

gynandrophore (Gr. *aner*, a male; *phorein*, I bear), see *gonophore*.

gynandrous (Gr. *aner*, a male), having the stamens and pistil adnate or united, as in the Orchid family; cp. *stigmatostemonous*.

gynantherous (Gr. *antheros*, blooming), having the stamens converted into pistils.

gynobase gynobasis (Gr. *basis*, a base), a short and broad enlargement of the torus or flower receptacle on which the pistil rests, as in the Orange family; a hypogynous disc; cp. *gynophore*, *carpophore*, *podocarp*: **gynobasic**, resting on a gynobase, as the style in Labiatæ.

gyno-dicœcious (Gr. *dis*, two; *oikos*, a house), said of flowers when hermaphrodite on one plant of the species, female on another, but never male; cp. *andro-dicœcious*, *polygamous*.

gynœcium (Gr. *oikos*, a house), the pistil or female part of a flower as a whole; cp. *andrœcium*.

gynophore (Gr. *phorein*, I bear), an internode of the flower-receptacle between the stamens and pistil and forming a stipe or stalk supporting the ovary; syn. *podogynium*; cp. *thecaphore*, *gynobase*.

gynostegium (Gr. *stego*, I cover), any sheath or covering of the gynœcium, as the staminal corona of Calotropis; cp. *stylostegium*.

gynostemium (Gr. *stemon*, the warp of a loom), the column of orchids formed by the union of the andrœcium and the upper part of the gynœcium.

gypseous (L. *gypsum*, sulphate of lime), containing or consisting of gypsum; of a chalky white (syn. *cretaceous*).

gyrate (L. *gyrus*, a circle), coiled or curved in a circle; cp. *circinate*, *tortile*: **gyrans**, moving in a circle: **gyrose**, concentrically twisted, plaited or curved alternately backward and forward; cp. *anfractuose*, *contorted*, *tortuous*: **gyroma**, a ring; syn. *annulus*.

H

habit (L. *habitus*, formed), the general appearance of a plant; cp. *facies*.

habitat, (L. *habito*, I dwell), the natural geographical range of a species: **habitation**, the locality where a plant is indigenous; cp. *station*.

hæmatitic (Gr. *haima*, blood), red with a tinge of grey.

hairs, thread-like outgrowths of the epidermis consisting of an elongated cell or row of cells; syn. *pili*, *trichomes*: **hairy**, pubescent with the hairs separately distinguishable; cp. *hirsute*, *pilose*, *pubescent*, *setose*, *tomentose*, *etc.*: **hair-shaped**, *filiform*.

halbert-shaped, *hastate*.

half-inferior half-superior, said of an ovary only the lower half of which is adnate to the calyx-tube; cp. *inferior*.

half-inverted, see *amphitropous*.

half-terete (Gr. *teres*, round), semi-cylindrical.

halm haulm (Gr.), the stalk or stem of grasses; the dead stem of an herb; cp. *culm*.

halonate (Gr. *halos*, a halo), with a coloured circle around a spot; cp. *areolate*.

halophyte (Gr. *hals*, the sea; *phuton*, a plant), a plant growing in salt marshes or in localities rich in salt: adj. **halophytic**; syn. *salsuginose*; cp. *uliginose*.

halved, with one half absent or apparently so; said of an anther when *dimidiate*.

hamate hamose (L. *hamus*, a hook; dim. *hamulus*), with the end curved or hooked; cp. *acronychious*, *aduncate*, *uncinate*: **hamular hamulose**, covered with small hook-like processes; cp. *lappaceous*.

handle-like, *manubriate*.

haplo- (Gr. *haplos*, single), prefix; cp. *diplo—*.

haplopetalous (Gr. *petalon*, a petal), with only one row or whorl of petals.

haplostemonous (Gr. *stemon*, the warp of a loom), with only one row or whorl of stamens; cp. *isostemonous*, *diplostemonous*.

hastate (L. *hasta*, a spear), spear-head-shaped; said of leaves pointed at apex and cordate at base with the lobes pointed and directed outward like a halbert; cp. *sagittate*, *auriculate*.

haulm, see *halm*.

haustorium, pl.-**ia** (L. *haustus*, a drawing in), a root-like sucker like that of the ivy; the sucker at the end of a parasitic root, as of Cuscuta; see *sucker*: adj. **haustellate**; cp. *surculose*.

haw (Gr. *hag*, hedge), the berry of Cratægus or hawthorn.

head, *capitulum*: —**of flowers**, a cluster of flowers on a short axis; cp. *anthodium*.

heart-shake, a crack in the wood of exogenous stems extending from the axis; cp. *ring-shake*: **heart-shaped**, *cordiform*: **heart-wood**, the inner hard layers of wood of exogenous stems; syn. *duramen*; cp. *sapwood*.

heath family, Ericaceæ.

heavy, said of an odour when strong; see *graveolens*; cp. *rank*.

hebetate (L. *hebes*, blunt), with a blunt soft point; cp. *muticous*: **hebecarpous** (Gr. *karpos*, fruit), with fruit covered by a soft down or pubescence; cp. *oxycarpous*.

helix (Gr. a spiral body; gen. *helikos*), a spiral; cp. *cycle*: **helicine**, *spiral*; cp. *cochleate*: **helicoid** (Gr. *eidos*, likeness), coiled in a spiral; cp. *scorpioid*: —**cyme**, a false raceme or spike usully uniparous; see *bostryx*; cp. *cincinnus*.

helmet-like, *cassideous*, *galeate*.

helminthoid (Gr. *helmins*, a worm; *eidos*, likeness), worm-shaped; syn. *vermiform*.

helvolous (L. *helvolus*), pale reddish-grey; cp. *hepatic*.

hemi-anatropous, *amphitropous*.

hemicarp (Gr. *hemi*, half; *karpos*, fruit), one of the achene-like or samara-like carpels of a cremocarp; syn. *mericarp*.

hemigyrus (Gr. *hemi*, half: *guros*, a circle), name for the hard and woody follicle of some Proteaceæ.

hemiphloia (Gr. *phloia*, bark), half-barked.

hemitropous, *amphitropous*.

hepatic (Gr. *hepatikos*, relating to the liver), liver coloured ; reddish-grey with tinge of yellow ; cp. *helvolous*.

hepta- (Gr. seven), prefix.

heptagynous (Gr. *gune*, a female), with seven styles or distinct carpels.

heptamerous (Gr. *meros*, a part), with seven members ; said of a flower with seven members in each whorl ; cp. *septenary*.

heptandrous (Gr. *aner*, a male), with seven stamens.

herb (L. *herba*, grass), a plant with a soft and usually green stem which dies down to the ground annually ; cp. *shrub*, *tree* : **herbaceous**, of the colour, texture or nature of herbs ; said of the leaves of the perianth when green ; cp. *membranous*, *scarious* : **herbal**, a book containing descriptions of plants usually with reference to their medicinal properties : **herbarium**, a collection of dried specimens of plants systematically arranged ; formerly a term for an illustrated herbal ; syn. *hortus siccus*.

hermaphrodite (Gr. *Hermes*, the god Mercury ; *Aphrodité*, the goddess Venus), having both stamens and pistil in the same flower ; syn. *bisexual*, *monoclinous*, *teleianthous*, *perfect* ; cp. *unisexual*, *polygamous*.

hesperidium (Gr. *Hesperides*, the owners of a fabulous garden of golden fruit), a form of berry ; a succulent many-celled indehiscent fruit with spongy rind, like the orange ; see *berry*.

heter- *hetero-* (Gr. *heteros*, different), prefix.

heteracmy (Gr. *akné*, the point), see *dichogamy*.

heterocarpous (Gr. *karpos*, fruit), producing two different kinds of fruit.

heterocephalous (Gr. *kephalé*, the head), bearing two kinds of flower head on the same plant, one with male and the other with female flowers ; cp. *heterocline*, *homogamous*.

heterochromous (Gr. *chroma*, colour), with the central or disc florets of a flower-head different in colour from the marginal or ray florets ; see *anthodium* : **heterochromatism**, the change in the colouration and marking of the flowers of plants of the same species, as in some species of Violet, Iris, Orchis, etc. ; cp. *homochromatism* : adj. **heterochromatic**.

heterocline (Gr. *kline*, a couch), on separate receptacles ; cp. *heterocephalous*.

heteroclite (Gr. *klitos*, a slope), *abnormal*.

heterodromous (Gr. *dromos*, a course), spirally coiled in changing directions ; cp. *dextrorse*, *sinistrorse*, *homodromous*.

heterogamous (Gr. *gamos*, marriage), when male, female, 2-sex, and neuter florets, or any two or three of these kinds, are borne in the same flower-head or capitulum ; also when two kinds of flowers of different sexes are borne on the same plant (cp. *dimorphous*) ; cp. *homogamous* : **heterogamy**, a term for cross-fertilisation.

heterogeneous (Gr. *gennao*, I produce), of different kind or nature ; not uniform ; cp. *homogeneous*.

heterogonous heterogone (Gr. *gonia*, an angle), said of dimorphism or trimorphism when the styles and stamens of one kind differ in length from those of the other kind or kinds, a device for intercrossing, as in Primula ; syn. *heterostyled* ; cp. *homogonous*, *heteromorphic*.

heteromerous (Gr. *meros*, a part), see *anisomerous*.

heteromorphous (Gr. *morphé*, shape), having an unusual form or structure ; syn. *abnormal* : **heteromorphic**, said of flowers when the dimorphism or trimorphism is *heterogonous*, q.v.

heterophyllous (Gr. *phullon*, a leaf), bearing foliage-leaves of more than one form on the same stem ; syn. *varivari*, *diversi-folious* : n. **heterophylly**.

heterostyled (Gr. *stulos*, a column), said of flowers differing in the relative length of their styles and stamens or filaments ; syn. *heterogonous* ; cp. *homostyled*.

heterotaxy (Gr. *taxos*, arrangement), in an unusual position ; with unusual arrangement.

heterotropous (Gr. *tropé*, a turning), said of the radicle when *vague*, and of the ovule when *dmphitropous*.

hexa- (Gr. six), prefix.

hexagonenchyma (Gr. *engchuma*, an infusion), tissue composed of hexagonal cells ; cp. *conenchyma*, *etc.*

hexagynous (Gr. *gune*, a female), having six styles or distinct carpels.

hexamerous (Gr. *meros*, a part), with six parts) ; having six members in each whorl of the flower ; cp. *senary*.

hexandrous (Gr. *aner*, a male), with six stamens; syn. *hexastemonous*.

hexapetalous (Gr. *petalon*, a petal), with six petals.

hexaphyllous (Gr. *phullon*, a leaf), with six leaves.

hexapterous (Gr. *pteron* a wing), six-winged.

hexasepalous, (Gr. *sepalon*, a sepal), with six sepals.

hexastemonous, see *hexandrous*.

hians (L.), gaping; syn. *ringent*.

hibernaculum, pl.-**a** (L. huts for winter quarters), the covering of bud scales, etc., which serves to protect young leaf buds during winter, the period of cessation of growth; cp. *cataphylla*, *perula*, *tegmenta*.

hidden, *obscure*, *occultated*: —**veined**, with veins or nerves so buried in the tissue of the leaf as to be invisible; syn. *introvenious*.

hiemal (L *hiems*, winter), relating to winter; syn. *brumal*; cp. *æstival*, *vernal*.

hilum hile (L. a small thing), the point of attachment of an ovule to the placenta or funicle; the mark or scar left on a seed on its separation from the placenta or funicle; syn. *umbilicus*; cp. *chalaza*: adj. **hilar**.

hinge-like, *ginglymoid*.

hip (AS. *hiop*), the fruit of the dog rose; cp. *cynarrhodon*.

hippocrepiform (Gr. *hippo*, a horse; *krepis*, a shoe; L. *forma*, shape), horse-shoe-shaped; cp. *reniform*.

hippuris family, Halorageæ.

hircose (L. *hircus*, a he-goat), with a goat-like odour.

hirsute (L. *hirsutus*, hairy), thickly covered with long and somewhat stiff hairs; syn. *hirtous*; cp. *hairy*, *hispid*, *etc*.

hirtous (L. *hirtus*, rough), *hirsute*: dim. **hirtellous**.

hispid (L. *hispidus*, shaggy), thickly covered with long stiff bristly hairs; cp. *hirsute*, *setose*: dim. **hispidulous**.

histioid (Gr. *histos*, a web; *eidos*, likeness), like an entangled net-work of cells or tissue; cp. *arachnoid*, *implexous*.

histology (G. *histos*, tissue; *logos*, a discourse), the study of the minute structure of plants and animals; cp. *physiology*.

hoary, *canescent*, *incanus*.

holly family, Ilicineæ.

holosericeous (Gr. *holos*, entire; L. *sericeus*, silken) thickly covered with fine silky hairs; cp. *sericeous*.

homo- (Gr. *homos*, *homoios*, like), prefix.

homocarpous (Gr. *karpos*, fruit), having fruits all of one kind; cp. *heterocarpous*.

homochromatism (Gr. *chroma*, colour), when the flowers of a species always present the same colour and pattern; cp. *heterochromatism*: adj. **homochromatic**: **homochromous**, with all the florets of a flower-head of the same colour; cp. *heterochromous*.

homodromous (Gr. *dromos*, a course), spirally curved in one direction only; cp. *heterodromous*.

homogamous (Gr. *gamos*, marriage), with the florets of a flower-head all male, all female or all hermaphrodite; cp. *heterogamous*, *heterocephalous*.

homogeneous (Gr. *gennao*, I produce), uniform in kind, nature, texture or structure; all of one kind; cp *heterogeneous*.

homogonous homogone (Gr. *gonia*, an angle), said of dimorphism or trimorphism when the styles and stamens of one kind do not differ in length from those of the other kind or kinds of the same species; syn. *homostyled*; cp. *heterogonous*.

homologous (Gr. *logos*, appearance), having affinity of type or plan of structure; with identity of parts but not of form or function; of similar mode of origin, position or arrangement; cp. *analogous*: **homologue**, an homologous organ or part: **homology**, affinity arising from identity of parts, structure or position but not of form or function; syn. *homotypy*; cp. *morphology*.

homomorphous (Gr. *morphé*, form), all of one form: **homomorphic**, having the pistil fertilised by pollen from the same flower; self-fertilised: **homomorphy**, a condition in which the disc and ray florets of an anthodium are of the same form.

homopetalous (Gr. *petalon*, a petal), with the petals formed alike.

homostyled, see *homogonous*; cp. *heterostyled*.

homotropous (Gr. *tropé*, a turning), turned in one direction; turned to a point near the hilum, as the radicle in anatropous seeds; syn. *inferior*, *descend-*

ing, orthotropous (as applied to the radicle); cp. *antitropous, inverse, vague.*

homotypic (Gr. *tupos* a figure), *homologous*: **homotypy**, *homology.*

honey (AS. *hunig*), the matter formed by bees from the sweet secretion of flowers: see *nectar*: —**bearing**, *melliferous*: —**combed**, *alveolate, faveolate*: —**dew**, *melligo*:—**secreting gland**, *nectary.*

hooded, *cucullate.*

hook, a simple undivided curved part serving often as a support in climbing; **hooked**, *uncate, hamate, glochidiate.*

horary (L. *horâ*, an hour), lasting for an hour.

hordeum (L.), barley.

hornotine (L. *hornotinus*, of this year), of the current year.

hornwort family, Ceratophylleæ.

horny, *corneous, chitinous*: **horned**, *cornute.*

horse-radish family, Moringeæ.

horse-shoe-shaped, *hippocrepiform, lecotropous.*

hortensis (L. *hortus*, a garden), growing in gardens; cp. *arvensis.*

hortus siccus, (L. a dry garden), see *herbarium*: **hortus vivus**, an old term for hortus siccus.

host (L. *hospes*, a guest), term for a plant that supports and nourishes another; cp. *stock.*

house-leek or **stone crop family**, Crassulaceæ.

humid (L. *humidus*), moist.

humifuse (L. *humus*, the ground; *fusus*, poured out), spread over the surface of the ground; cp. *procumbent.*

humilis (L.), low in stature; syn. *pumilus, nanus, pygmæus*; cp. *grandis, procerus, elatus, gigantic.*

humus (L. soil), brown or black soil formed in forests by the mixture of earth with decaying vegetable matter; vegetable mould.

husk (Dut. a case), the outer covering or rind of many fruits and seeds; a dry pericarp; a term for the cupule of the hazel: **husked**, stripped of husk.

hyaline (Gr. *hualos*, glass), glass-like transparent or nearly so and colourless (syn. *vitreous*); the substance which originates the cell-nucleus: **hyaloid** (Gr. *eidos*, likeness), like glass; transparent (cp. *diaphanous, translucent*); n. a thin clear membrane.

hybernaculum, see *hibernaculum.*

hybrid (L. *hybrida*, a mongrel), a cross-breed between two species: n. **hybridisation.**

hydragogue (Gr. *hudor*, water, *ago*, I lead), a medicine having the property of causing a copious watery discharge from the bowels.

hydrophyte (Gr. *hudor*, water; *phuton*, a plant), a plant living on or under water: adj. **hydrophytic**; syn. *aquatic.*

hydrotropism (Gr. *hudor*, water; *tropé*, a turning), the sensitiveness of plant parts, as the roots, in the presence of moisture.

hyemal, see *hiemal.*

hyp-, hypo- (Gr. *hupo*, under), prefix.

hypanthium (Gr. *anthos*, a flower), any special enlargement or development of the receptacle of a flower under the calyx, as in the rose: adj. **hypanthial.**

hypanthodium (Gr. *anthos*, a flower; *duo*, I put on), a special form of capitulum, the fleshy receptacle enclosing the flowers, as in the fig; syn. *syconium.*

hyper- (Gr. *huper*, over), prefix.

hyperborean (Gr. *boreas*, the north), northern.

hyperplasia (Gr. *plasso*, I form), the excessive multiplication of parts; cp. *chorisis.*

hypertrophy (Gr. *trophé*, food), enlargement of organs due to exceptionally favourable conditions of growth.

hypoblast (Gr. *blastano*, I germinate), a name for the fleshy cotyledon of grasses.

hypocarpogean (Gr. *karpos*, fruit; *gé*, the earth), maturing the fruit underground, as in the case of the "ground nut," Arachis hypogæa.

hypochilium (Gr. *cheilos*, the lip), the basal portion of a labellum when it is divided, as in an orchid; cp. *epichilium.*

hypocotyl (Gr. *kotulé*, a hollow), the portion of an embryo or of a seedling below the cotyledons; syn. *radicle*; cp. *epicotyl.*

hypocrateriform **hypocrateri-morphous** (Gr. *crater*, a cup; *morphé*, shape), salver-shaped; said of a corolla with slender cylindric tube and flat horizontally expanded limb.

hypogæal hypogæous (Gr. *gé*, the earth), underground (syn. *subterranean*); growing below the earth's surface; cp. *epigæal*.

hypogenous (Gr. *gennao*, I produce), growing beneath.

hypogynous (Gr. *guné*, a female), inserted below the ovary; cp. *epi-*, *perigynous*.

hyponasty (Gr. *nastos*, pressed together), the nutation of an organ when the bending is caused by more rapid growth on the outer, lower or dorsal side than on the other; cp. *epinasty*.

hypophyllium (Gr. *phullon*, a leaf), an abortive leaf under another leaf, as in Asparagus: **hypophyllous**, situated on or growing from the under side of a leaf.

hypsophylla (Gr. *hupsos*, summit), the upper leaves of a plant forming the small leaves below the flowers of an inflorescence; syn. *bracts*; cp. *prophylla*: adj. **hypsophyllary**.

hysteranthous (Gr. *husteros*, after; *anthos*, a flower), producing leaves after the flowers have formed.

hysterophyte (Gr. *hustera*, the womb; *phuton*, a plant), a plant living on dead or living organic matter; cp. *parasite*, *saprophyte*.

I

ianthine (L. *ianthinus*), violet; blue with a tinge of red; syn. *amethystine*, *violaceous*.

icones (Gr. *eikon*), forms as figured in descriptive drawings of plants.

icosandrous (Gr. *eikosi*, twenty; *aner*, a male), with twenty or more stamens inserted on the calyx; hence **Icosandria**, a Linnæan order; cp. *Polyandria*, *indefinite*.

idioplasm (Gr. *idios*, proper, peculiar; *plasma*, what has been formed), the active organising portion of the protoplasm.

igneous (L. *igneus*, glowing; from *ignis*, fire), bright scarlet; syn. *flammeous*.

imberbis (L.), beardless; cp. *barbate*.

imbibition (L. *imbibo*, I drink in), see *endosmosis*.

imbricate imbricative (L. *imbrex*, a tile), overlapping; in a spiral, with the tops of the lower overlapping the bases of the upper leaves; in a whorl of three with one part within, one part without and the third with one margin without and one within the coil; in a whorl of five, with two parts wholly within, two parts wholly without and the fifth partly within and partly without the coil (syn. *quincuncial*); cp. *convolute*, *equitant*: —**stigma**, one that is lobed and the lobes imbricate.

immarginate (L. *in*, not; *margo*, a border), without a rim or border.

immersed (L. *immersum*, sunk), growing under water; syn. *submersed*; cp. *aquatic*.

immobile (L. *immobilis*, immovable), firmly fixed, as an adnate anther to the filament; cp. *versatile*.

imparipinnate (L. *impar*, unequal; *pinnatus*, winged), pinnate with a terminal leaflet, or if bipinnate then with a terminal pinna; cp. *pari-*, *abruptly-*, and *interruptedly-pinnate*.

imperfect (L. *in*, not; *perfectus*, complete), wanting in one or more organs usually present: — **flower**, one wanting perfect stamens or perfect pistil or both; *i.e.*, one that is either *unisexual* or *neuter*; cp. *perfect*, *incomplete*.

imperforate (L. *in*, not; *perforo*, I pierce through), without a terminal opening.

impermeable (L. *in*, not; *permeo*, I penetrate), not admitting the passage of a liquid.

impervious (L. *in*, not; *pervius*, passable), not admitting the passage of another body.

implicate (L. *implecto*, I interweave), folded inward; cp. *replicate*: **implexous**, entangled; cp. *reticulated*, *histioid*: **implexo-ramose**, with interwoven branches.

impregnation (L. *in*, in; *prægnans*, pregnant), the act of rendering fruitful; syn. *fecundation*, *fertilisation*; cp. *pollination*.

impressed (L. *imprimo*, I press in), marked with small depressions: —**nerves**, those slightly below the surface of the leaf: **impress-punctate**, with the gland dots in shallow depressions; see *punctate*.

inadherent (L. *in*, not; *adhæro*, I cleave to), when dissimilar parts do not cohere; syn. *free*; cp. *adherent*.

inæquilateral (L. *in* not; *æqualis*, equal; *latus*, a side), unequal sided, as

the leaves of Begonia; see *unequal, oblique.*

inane (L. *inanis*), empty; as a stem without pith; cp. *cassus, cenanthous.*

inappendiculate (L. *in*, not; *ad*, to; *pendeo*, I hang), without appendages.

inarticulate (L. *in*, not; *artus*, a joint; dim. *articulus*), not jointed.

incanus (L.), hoary: **incanescent**, *canescent.*

incarnate (L. *in*, into; *caro*, gen. *carnis*, flesh), flesh-coloured; syn. *carneous.*

incised (L. *incido*, I cut into), cut deeply into sharp and irregular divisions; cp. *laciniate*: **inciso-serrate**, deeply cut with the margins serrate.

inclined (L. *inclino*, I bend), *declinate.*

included (L. *in*, in; *claudo*, I shut), not protruding beyond the surrounding parts; said of style or stamens that do not extend beyond the mouth of a gamopetalous corolla; cp. *exserted.*

incomplete (L. *in*, not; *completum*, filled up), said of a flower wanting calyx or corolla or both; a general term for both mono- and a-chlamydeous flowers; hence **Incompletæ**, one of the three main divisions of Dicotyledonæ: cp. *imperfect, complete*: — **chorisis**, when the divisions of a morphologically single organ do not extend to the base.

inconspicuous (L. *in*, not; *conspicuus*, visible), very small; hardly visible; syn. *faint*; cp. *obscure.*

inconstant (L. *in*, not; *constans*, unchanging), said of a character variable in different plants of the same species; cp. *constant.*

incrassate (L. *in*, into; *crassus*, thick), thickened, a term applied to solids; cp. *inspissate.*

increasing (L. *in*, into; *cresco*, I grow), enlarging after flowering; syn. *accrescent.*

incrustate incrustated incrusted (L. *in*, into; *crusta*, a rind or shell), intimately united so as to form one with, as at times the pericarp with the seed.

incubous (L. *in*, into; *cubo*, I lie), with the tip of one leaf or part lying right over the base of the next above it; cp. *imbricate* (with reference to a spiral).

incumbent (L. *incumbens*, lying upon), leaning upon: — **anther**, one fixed at any part of the back and lying along the inner face of the filament; cp. *adnate, dorsifixed, medifixed*: — **cotyledons**, those having the radicle lying along the back of one; cp. *accumbent, notorhizal.*

incurvate incurved (L. *incurvus*), curved inward: — **ovule**, see *campylotropous.*

indefinite (L. *in*, not; *definitus*, bounded), very numerous; too many to be readily counted; of uncertain number: — **stamens**, twenty or more; cp. *icosandrous; polyandrous*: — **growth**, that continued by means of axillary buds, the main stem or stems annually dying down wholly or partially: — **inflorescence**, see *botryose*; cp. *definite.*

indehiscent (L. *in*, not; *dehisco*, I gape), said of fruits the pericarp of which does not open to discharge the seed; cp. *dehiscent*: n. **indehiscence.**

independence (L. *in*, not; *de*, down; *pendeo*, I hang), the separation of organs usually entire.

indeterminate (L. *in*, not; *determinatum*, bounded), see *botryose.*

Indian fig family, Cacteæ.

indigenous (L. *indigena*, native), growing naturally from the beginning in any locality, not introduced; syn. *aboriginal*; cp. *exotic.*

individual (L. *individuus*, indivisible), a single plant, the unit in Systematic Botany (cp. *phytomer*); a group of individuals alike in essentials constituting the species, a group of nearly related species the genus; and the botanic name of the plant being the name of the species preceded by the name of the genus.

indivisus (L.), entire; syn. *integer.*

indumentum (L. *induo*, I put on; *mentum*, the chin), a general term for any form of hairy covering or coating; cp. *integument, velumen.*

induplicate (L. *in*, in; *duplex*, double), with the margins folded inwards; cp. *involute, conduplicate*: — **valvate**, said of leaves in a whorl induplicate themselves and valvate with respect to each other.

indurated (L. *in*, into; *duro*, I harden), hardened; cp. *incrassate.*

indusium (L. *induo*, I put on), the hairy cap of certain stigmas; the covering of the sori in many ferns: **indutive**, with the usual covering, as seeds in a seed-vessel; cp. *angiospermous.*

induviæ (L. clothing), persistent withered parts: **induviate**, clothed with withered

parts, as the ripening ovary of Pardanthus with the withered petals.

inenchyma (Gr. *ines*, fibre; *engchuma*, tissue), tissue consisting of cells in which there is a spirally-coiled fibre, as in many vessels.

inequilateral, see *inæquilateral*.

inermis (L.), unarmed; without thorns or prickles.

inferior (L.), lower; situated below; that side of a lateral or axillary flower that is turned away, *i.e.*, farthest from, the axis of inflorescence or stem (syn. *lower*, *anterior*); cp. *superior*: —**calyx**, one free from and inserted below the ovary; syn. *hypogynous*: —**ovary**, one wholly adnate to the calyx-tube or nearly so; cp. *half-inferior*: —**radicle**, one turned towards the hilum in an anatropous ovule; syn. *descending*, *homotropous*.

infertile (L. *in*, not; *fertilis*, fruitful), *barren*, *sterile*; cp. *fertile*.

inflated (L. *inflatus*, swollen), distended; syn. *tumid*, *turgid*; cp. *emphysematous*, *utriculate*, *ventricose*.

inflexed (L. *in*, into; *flecto*, I bend), bent abruptly inward; syn. *introflexed*; cp. *incurved*, *involute*, *reclinate*.

inflorescence (L. *in*, into; *floresco*, I blossom), the mode in which the flowers or flowering branches with their appendages above the last stem-leaves are arranged on the plant; also the actual cluster of flowers; cp. *spike*, *truss*.

infra-axillary (L. *infra*, below; *axilla*, the arm-pit), below the axil: **infra-foliar** (L. *folium*, a leaf), said of a palm spadix that flowers after the fall of the leaf in the axil of which it was formed; cp. *interfoliar*: **infra-median**, said of a bracteole when inserted below the middle of the pedicel; cp. *median*.

infracted (L. *infractus*, broken), much broken.

infundibular infundibuliform (L. *infundibulum*, a funnel; *forma*, shape), funnel-shaped; see *scyphus*.

infusion (L. *in*, into; *fundo*, I pour), the operation of extracting the medicinal properties of a plant by steeping it in water; the resulting liquor; cp. *decoction*.

innate (L. *in*, into; *natus*, born), adnate or adherent to the apex; said of an anther forming a part of the apex of the filament, and with usually marginal dehiscence; cp *adnate*.

inner suture, see *ventral suture*.

innovation (L. *innovatus*, renewed; from *novus*, new), a newly-formed shoot.

inophyllous (Gr. *is*, gen. *inos*, a fibre; *phullon*, a leaf), with fibre-like or thread-like veins in the leaf.

inops (L. without means), poor, deficient; syn. *exiguus*, *exilis*.

inosculation (L. *osculatio*, a kissing) see *anastomosis*; also a term for grafting or budding: adj. **inosculating**.

inquinant (L. *inquino*, I defile), stained, befouled; cp. *maculate*.

insectivorous (L. *voro*, I devour), insect-eating, as certain plants which capture and kill insects, absorbing their juices.

insertion (L. *in*, in; *sero*, I connect), the mode in which or place where one body is borne on or supported by another.

insignis (L.), remarkable; syn. *eximius*.

insipid (L. *insipidus*, unsavoury), tasteless; without the bitter taste of allied species; dull in colour, as some leaves; cp. *sapid*, *vivid*.

inspissated (L. *in*, into; *spisso*, I thicken), thickened, as a liquid by evaporation; cp. *incrassate*.

integer (L.), entire; with plain not lobed or divided margin; syn. *indivisus*: **integerrimus**, with the margin quite entire, free from serratures, and slightly thickened.

integument (L. *in*, in; *tego*, I cover), the covering or investing tissue forming a membrane, skin, rind or shell; any closely surrounding or investing part; syn. *tegument*, *vestiture*; cp. *indumentum*, *velumen*: —**of the flower**, the calyx and corolla; syn. *floral envelopes*: —**of the ovule**, the single or double envelope; see *primine*, *etc.*: —**of the seed**, the *tegmen* and *testa*.

inter- (L. between), prefix.

intercalate intercalated (L. *intercalo*, I insert; from *calo*, I call or proclaim), placed between; syn. *interposed*: **intercalary**, said of the interposing tissue between a cell-wall and new growth.

intercellular (L. *cellula*, a little cell), between the cells.

intercostal (L. *costa*, a rib), between the principal nerves or ribs of a leaf.

intercrossing, see *cross-fertilisation*.

interfoliate interfoliaceous (L. *folium*, a leaf), between opposite sessile or petioled leaves, as the stipules of many Rubiaceæ; cp. *interpetiolar*: **interfoliar**, said of a palm spadix which

flowers while the leaf in whose axil it is formed is still green ; cp. *infrafoliar*.

intermediate (L. *medius*, the middle), lying in the middle space between two parts : —**plication**, a plait or folding between the nerves of leaves, as in Dipterocarpus.

internode (L. *nodus*, a knot), that portion of a stem or axis that lies between two nodes or places where leaves or other appendages are given off.

interpetiolar (L. *petiolus*, a little foot), situated between the foot-stalks or petioles of the leaves ; cp. *interfoliate*.

interposed (L. *pono*, I place), placed between ; syn. *intercalate*.

interrupted (L. *ruptus*, broken), having the regularity or symmetry of form or texture partially broken : —**spike** or **raceme**, an inflorescence with the flowers borne in spicate or racemose clusters around a simple axis, a form of *panicle* : **interruptedly pinnate**, said of a compound pinnate leaf when the pairs of pinnæ or leaflets are alternately large and small ; cp. *imparipinnate*.

interstaminal (L. *stamen*, the warp of a loom), situated between two stamens.

interstitial (L. *sisto*, I stand), having small intervening spaces ; cp. *cribrose*, *etc.* : n. **interstice**.

intextine (L. *intus*, within ; *exter*, on the outside), a membrane between the middle and outermost coat of a pollen-grain ; see *extine*, *intine*.

intine (L. *intus*, within), the innermost coat of a pollen-grain ; see *extine*, *intextine*.

intra- (L. within), prefix.

intrafoliaceous (L. *folium*, a leaf), at the junction of leaf-base or petiole with the stem ; within or before a leaf ; cp. *axillary*.

intramarginal (L. *margo*, a border), within the margin : —**rib**, that between the edges or margins of some compressed achenes : —**vein**, that running parallel to or near the edge of a leaf, as in Myrtaceæ.

intrapetiolar (L. *petiolus*, a little foot), said of stipules connate by their inner margins and so apparently forming one stipule between petiole and branch.

intrarious (L. *intra*, within), said of an embryo when altogether surrounded by the albumen except at the end of the radicle.

intro- (L. within), prefix.

introduced (L. *duco*, I lead), brought from without by any agency ; not originally native to the locality, cp. *aboriginal*, *indigenous*.

introflexed, see *inflexed*.

introrse (L. *introrsus*, *i.e.*, *introversus*, from *verto*, I turn), turned inward, as an anther towards the axis of the flower ; syn. *anticous* ; cp. *extrorse*, *retrorse*.

introsusception intussusception (L. *suscipio*, I take up), the taking of foreign matter into living tissue ; the taking up, by a living organism, of new matter between that already formed.

introvenious (L. *vena*, a vein), *hidden-veined*.

intruded intrusive intruse (L. *intrudo*, I thrust in), projected or projecting inward.

inverted inverse (L. *inverto*, I turn over), turned completely or partially over ; syn. *retroverted* ; cp. *half-inverted*, *resupinate* : —**embryo**, one with the radicle pointing away from the hilum, as in an orthotropous ovule ; syn. *antitropous* : —**ovule**, one attached to the top of the ovary : —**seed**, one in an opposite position to what it held as an ovule, as in Olax the seed is erect, but the ovule pendulous : n. **inversion**.

invertin (L. *inverto*, I change), a ferment that converts cane sugar into grape sugar or glucose ; cp. *diastase*.

invested (L. *in*, on ; *vestis*, a garment), closely surrounded ; coated ; cp. *obtectus*, *obvallate* : **investment**, a coat ; syn. *vestiture*, *integument*.

involucre (L. *involucrum*, a wrapper), the circle or whorl of bracts subtending a flower-cluster ; cp. *calyculus* : adj. **involucrate involucral** : **involucel**, a secondary involucre like that of an umbellet : adj. **involucellate**.

involute (L. *in*, in ; *volutus*, rolled), rolled inward ; cp. *revolute*, *convolute*.

iris family, Irideæ.

irregular (L. *in*, not ; *regula*, rule), departing from the general rule ; syn. *abnormal* : —**flower**, one with the petals or perianth leaves unequal in size or shape or (as in a bilabiate corolla) inserted at unequal distances ; cp. *regular*.

irritable (L. *irrito*, I stimulate), see *sensitive*.

isadelphous (Gr. *isos*, equal ; *adelphi*, brethren), with the stamens in two

bundles or phalanges, and of the same number in each bundle ; cp. *diadelphous.*

ischuretic (Gr. *ischo,* I retain ; *ouron,* urine), having the property of relieving **ischurid,** *i.e.,* the stoppage or retention of urine.

isidiose isidoid (Gr. *isidos,* coral ; *eidos,* likeness), covered with coral-like powdery excrescences ; cp. *coralloid.*

isobrious (Gr. *isos,* equal ; *bridо,* I strengthen), growing with equal force, as the two cotyledons of a dicotyledonous plant.

isochrous (Gr. *isos,* equal ; *chroa,* colour), of uniform colour throughout ; all of the same colour ; syn. *concolorous* ; cp. *allochrous.*

isolated (L. *insula,* an island), standing singly ; syn. *solitary* ; cp. *gregarious.*

isomerous (Gr. *isos,* equal ; *meros,* a part), having an equal number of members in each organ of the flower ; cp. *symmetrical, anisomerous.*

isostemonous (Gr. *isos,* equal ; *stemon,* the warp of a loom), with only one whorl or series of stamens, the stamens equal in number to the petals ; cp. *anisostemonous, haplostemonous* : n. **isostemony.**

ivy family, Araliaceæ.

ixous (Gr. *ixos,* bird-lime), sticky, like bird-lime ; syn. *viscous.*

J

jagged, *laciniate.*

jalap (*Xalapa* in Mexico), the dried root of Exogonium Purga, a plant of the Convolvulus family.

jelly-like, *gelatinous, tremelloid.*

jointed, *articulated.*

joint-fir family, Gnetaceæ.

juba (L. a mane ; *jubatus,* crested), a loose and much branched panicle : adj. **jubate.**

jugum (L. a yoke ; pl. *juga*), a pair of leaflets ; see *unijugate, bijugate* : **juga,** the ribs or ridges of a cremocarp : **jugate,** paired.

juicy, *succulent.*

julaceous juliform (Gr. *ioulos,* a catkin), catkin-like ; syn. *amentaceous* : **julus,** *catkin, ament.*

juncaceous (L. *juncus,* a bulrush), belonging to the Rush family : **juncous,** rush-like.

jute, the fibrous tissue of Corchorus capsularis : **jute family,** Tiliaceæ.

K

kamela (Bg. *kamala*), the bright red resinous glands on the fruit of Rottlera tinctoria, yielding a dye.

keel, *carina.*

kermesine (Gr. *kermes,* an insect), carmine,

kernel (Ger. *kern*), all that portion of an ovule that is enclosed within the coats ; the portion of a nut or drupe within the shell or stone.

key, *clavis* : **key-fruit,** *samara, pteridium.*

kidney-shaped, *reniform.*

kingdom, a grand division of Nature, as Animal, Vegetable and Mineral.

kleistogamous, see *cleistogamous.*

knaur, a woody protuberance from the trunk of a tree ; syn. *gnaur.*

knob, a name sometimes given to the tuber of an Orchis ; syn. *pseudo-bulb.*

knotty, *nodose.*

knot-wort family, Illecebraceæ.

L

label (L. *labellum,* a little lip), the terminal division of the lip of an Orchis ; **labellum,** the lower petal of an orchis, unlike in size and shape to the others ; the middle petal of the inner whorl of the perianth ; syn. *lip.*

labium (L., a lip), the lower lip of a bilabiate flower : **labiate,** two-lipped ; syn. *bilabiate* : —**family,** Labiatæ : **labiose,** said of a polypetalous flower that appears bilabiate : **labiatifloral** (L. *flos,* a flower), having all the florets of an anthodium with bilabiate corollas, as in some Compositæ ; cp. *liguliflоral, tubuliflоral.*

laccate (It. *lacca,* varnish), as if varnished ; syn. *vernicose* ; cp. *lævigate, nitidate.*

lacerate (L. *lacer,* torn), irregularly cleft as if torn ; cp. *erose, laciniate.*

lachrymæform (L. *lachryma,* a tear ; *forma,* shape), tear-drop like ; cp. *pyriform.*

laciniate laciniose (L. *lacinia,* the flap of a garment), irregularly cut into

narrow segments or laciniæ; fringed or slashed into narrow lobes; cp. *erose, fimbriate, ciliate, lacerate, lichenoid, pectinate*: **laciniolate lacinulate,** with irregular minute narrow segments; cp. *capillaceo-multifid*: **lacinula,** a minute lobe or segment; the inflexed tip of the petals of some Umbelliferæ.

lactescent lactiferous (L. *lac*, milk; *fero*, I bear), yielding milky juice; cp. *laticiferous*: **lactescence,** milky property or colour: **lacteous,** milk-white: **lactuca** (L.), the lettuce.

lacuna (L.), a pit or depression; an intercellular space formed by the separation or breaking down of cells; see *duct*: **lacunate lacunose,** with pits or cavities; cp. *excavate, foveate*: **lacunar,** forming cavities, as by the separation of cells.

lacustrine (L. *læus*, a lake), relating to or growing in lakes or ponds; cp. *palustrine*.

lætus (L. glad), of a pleasing appearance.

lævigate (L. *lævis*, smooth), with a smooth polished surface; syn. *politous*; cp. *ardent, laccate, lubricous, lucid, nitidate, splendens*: **lævis** (L.), smooth; cp. *asperous, scabrous*.

lageniform (L. *lagena*, an earthen bottle with narrow neck), flask-shaped, hence Lagenaria, the Bottle-gourd; cp. *ampul-laceous*.

lagopus (Gr. *lagos*, a hare; *pous*, a foot), densely covered with long hairs like a hare's foot.

lambdoidal (Gr. letter Λ, *lambda*; *eidos*, likeness), like the Greek letter lambda.

lamellate lamellar lamellose (L. *lamella*, a thin scale or plate), consisting of thin flat scales or plates: **lamellæ,** the flat divisions of a stigma.

lamina (L., a thin plate of metal), a membranous layer (cp. *stratum*), the blade of a leaf; the expanded portion of a clawed petal (cp. *claw*): **laminated,** in layers of thin superimposed plates; cp. *stratose, tabulated*.

lanate (L. *lana*, wool), with long loosely imbricate or curly hairs; cp. *tomentose, floccose*: **lanigerous** (L. *gero*, I bear), covered with a woolly indumentum; syn. *eriophorous*; cp. *lanuginate*.

lanceolate (L. *lancea*, a lance), shaped like a lance head, narrower than oblong, tapering at both ends and broader near the base; cp. *cuneate, ob-lanceolate*.

lancet-shaped, *scalpelliform*.

lanuginate lanuginose (L. *lanugo*, soft down), with long soft interlacing hairs or down, finer than lanate; cp. *cottony, woolly, lanate*.

lapideous lapillose (L. *lapis*, a stone), stony, as the hard portion of stone fruits; cp. *putaminaceous*.

lappaceous (L. *lappa*, a bur), covered with tufts of prickles; bur-like; cp. *hamular, tribuloid*.

larix (L.), the Larch.

lasianthous (Gr. *lasios*, hairy; *anthos*, a flower), woolly-flowered: **lasiandrous** (Gr. *aner*, a male), with hairy stamens.

latent (L. *latens*, concealing), said of buds in an undeveloped state; cp. *dormant, nascent*.

lateral (L. *latus*, a side), on or with reference to the side; said of those parts of a lateral or axillary flower that are on either side of the axis, or on either side of the plane containing bract and axis; cp. *medial, anterior, posterior*: —**flower** or **inflorescence,** one that is not terminal: —**raphe,** one turned to one side of the placental axis, *i.e.*, neither *averse* nor *adverse*.

lateritous (L. *later*, a brick), brick-red; cp. *testaceous*.

latex (L. juice), milky sap; the proper juice or elaborated sap, often milky; the moisture which exudes from a mature stigma: **laticiferous** (L. *fero*, I bear), containing or conveying latex; cp. *lactescent*: —**tissue,** *cinenchyma*.

latiseptate (L. *latus*, broad; *septum*, a barrier), with broad partitions as in the siliculæ of some Cruciferæ.

lattice-like, *cancellate, clathrate*.

laurel family, Laurineæ.

lavender (L. *lavo*, I wash, the plant being formerly used in bathing), a plant, Lavendula, yielding an essential oil; pale blue in colour with grey.

lax (L. *laxus* loose), loose, not rigid: —**panicle,** diffuse, with the flowers not compactly arranged: **laxative,** a medicine having an opening action on the bowels; syn. *aperient, purgative*.

layer, a stratum; a branch bent down to the earth and with one portion partly cut and kept in contact with the earth to form roots; syn. *malleolus*; cp. *gooti, stolon, etc.*: **layering,** the propagation of plants by means of layers.

leader, the uppermost portion of the principal axis or main trunk of a tree;

the strongest topmost shoot which tends to form a continuation of the main trunk.

leaf (Ger. *laub*), a cellular expansion, usually green, lateral and of limited growth, proceeding from the epidermis and consisting when simple of one blade, and when compound of distinct blades called **leaflets**; one of the parts or segments of a perianth when calyx and corolla are undistinguishable: **leaf-blade**, see *lamina*: **leafbud**, a bud that developes into a leaf; syn. *gemma*: **leaf-scar**, the mark or scar left on a branch on the abscission of a leaf; syn. *phyllula*: **leaf stalk**, *petiole*.

leathery, *coriaceous*.

lecotropous (Gr. *lekos*, a dish; *trope*, a turning), horse-shoe-shaped; syn. *lycotropous*, *hippocrepiform*.

lecus, see *corm*.

legume (L. *legumen*, pulse), a fruit of a single carpel opening by both sutures when ripe; the characteristic fruit of Leguminosæ; cp. *loment*, *scytinum*, *pod*, *follicle*: adj. **leguminous**.

lenticel (L. dim. of *lens*, a lentil), a lentil-shaped process on the bark of some trees, as the Willow: **lenticular lentiform** (L. *forma*, shape), lentil-shaped, *i.e.*, like a double convex lens; cp. *meniscoid*.

lentiginose (L. *lentigo*, a lentil-shaped spot), covered with small dots, freckled.

lepal (Gr. *lepis*, a scale), term for a stamen transformed into a scale.

lepidote (Gr. *lepis*, a scale), scurfy with minute scales; syn. *leprose*, *squamulose*; cp. *squarrose*, *squamose*, *furfuraceous*.

leprose (Gr. *lepros*, scaly), see *lepidote*.

lepto- (Gr. *leptos*, slender), prefix.

leptocarpous (Gr. *karpos*, fruit), with slender carpels; cp. *stenocarpous*.

leptophyllous (Gr. *phullon*, a leaf), slender leaved; cp. *pachyphyllous*.

leucanthous (Gr. *leukos*, white; *anthos*, a flower), white-flowered.

leucophyllous (Gr. *leukos*, white; *phullon*, a leaf), white-leaved.

levigate, see *lævigate*.

levis, see *lævis*.

liane liana (Sp. *liar*, to fasten), name for large luxuriant woody climbers.

liber (L.), the inner bark of a plant, often fibrous, situated between the mesophlœum and the cambium; syn. *endophlœum*: **libriform cells**, spindle-shaped wood cells with inconspicuously-pitted thick walls and without protoplasm.

lichenoid (Gr. *leichen*, moss; *eidos*, likeness), irregularly lobed; cp. *laciniate*.

lid, *operculum*.

ligneous (L. *lignum*, wood), woody: **lignin**, woody matter that thickens cell walls and gives its peculiar character to the wood of trees: **lignum vitæ** (L. *vita*, life), a West Indian tree, Quaiacum officinale.

ligule (L. *ligula*, a strap), the strap-shaped ray floret in some Compositæ; a scarious projection from the leaf-sheath or petiole of grasses where it joins the blade; an outgrowth from the inner face of certain petals: **ligular**, of the nature of a ligule: **ligulate**, strap-shaped; syn. *lorate*: **ligulifloral** (L. *flos*, a flower), having only ligulate florets, as the flower heads of some Compositæ; cp. *labiatifloral*, *tubulifloral*.

lilac lilacine (Sp. *lilac*), greyish purple, like the flowers of the lilac, Syringa vulgaris.

liliaceous (L. *lilium*, a lily), belonging, to or relating to the Lily family, Liliaceæ.

limb (L. *limbus*, a border), the expanded part of a gamopetalous corolla as distinguished from the tube and throat; the blade of a leaf or clawed petal (see *lamina*): **limbus**, a fringe or border: **limbate**, bordered; cp. *liminate*, *marginate*.

lime or **linden-bloom family**, Tiliaceæ.

limitate (L. *limes*, a boundary line), bounded by a distinct line; cp. *limbate*, *marginate*.

limose (L. *limus*, mire), growing in mud; muddy.

line (L. *linea*, a line), a thin long mark; a measure of $\frac{1}{12}$th of an inch: — **of vegetation**, for any species a line connecting the places where the distribution of that species is checked by climatic or other influences: **linear**, narrow with almost parallel edges and 5 times or more as long as broad; cp. *acicular*: **lineate**, marked with lines; cp. *striate*: **lineolate**, marked with fine lines; cp. *lirellate*.

lingulate linguiform (L. *lingua*, a tongue; *forma*, shape), tongue-shaped.

Linnæan system, see *sexual system*: **Linnæan nomenclature**, see *binomial*.

lip, the lower petal of an orchis (syn. *labellum*); the petaloid sepal of Impatiens, the large petal then being called the "standard"; one of the two divisions of a gamophyllous corolla or calyx; cp. *labium, bilabiate.*

lirellate (L. *lira*, a ridge; dim. *lirella*), marked with small ridges or furrows; cp. *canaliculate, lineate, sulcate, vittate.*

lithophil (Gr. *lithos*, a stone; *philos*, loved), growing on rocks and stones; syn. *petrose.*

lithophyte (Gr. *lithos*, a stone; *phuton*, a plant), a plant which grows on a stone and derives its nourishment mainly from the air; cp. *ærophyte.*

littoral litoral (L. *litoralis*, relating to the sea-shore), growing on or along the sea-shore; syn. *maritime*; cp. *riparian.*

lituate (L. *lituus*, a curved trumpet), clarion-shaped, straight at the larger and curved or coiled at the smaller end; cp. *tubæform.*

liturate (L. *litura*, an erasure), erased, blurred.

livid (L. *lividus*, bluish), lead-coloured.

lixiviate (L. *lix*, lye), to convert into lye; to dissolve out the saline matter contained in wood-ashes: n. **lixiviation.**

lobe (Gr. *lobos*, the lobe of the ear), a rounded division: **lobate, lobed**, having lobes; said of a leaf with rounded divisions extending not more than halfway down; cp. *cleft, parted*: **lobulate**, with minute lobes.

locellus (L. dim. of *loculus*, a chest), a secondary division of a cell: **locellate**, said of a one-celled (*unilocular*) ovary or anther-sac (*theca*) divided by a partition into two compartments or locelli.

loculicidal (L. *loculus*, a cell; *cædo*, I cut), a form of dehiscence of a ripe capsule, the splitting being into the loculi or cells and between, not through, the dissepiments; cp. *septicidal, marginicidal, septifragal*: **loculicidally**, in a loculicidal manner: —**septifragal**, when the valves of a ripe capsule break away from the dissepiments, and their line of separation from each other leads into the cells, and is not at the common junction of the valves with the dissepiments; cp. *marginicidally septifragal.*

loculus loculament (L. dim. of *locus*, a place), the cell of an ovary; the sac, lobe, or cell (*theca*) of an anther: **locular loculose**, celled, in comp. as *bilocular*, two-celled.

locusta (L.), the spikelet of grasses; cp. *spike.*

lodicule (L. *lodix*, a rug or coverlet; dim. *lodicula*), one of the small scales at the base of the ovary of grasses (representing the perianth) and of the grape vine; syn. *squamella, paleola.*

loment (L. *lomentum*, bean-meal), a form of legume which breaks up at maturity into indehiscent one-seeded particles; cp. *legume, follicle.*

longipes, (L.), long-stalked; syn. *macropodous.*

loose, see *lax*; cp. *dense, compact*: **loosestrife family**, Lythraceæ.

lop (It. *lappare*), to cut off the tops of twigs and branches, usually for fodder; cp. *pollard, prune.*

lophiostomate (Gr. *lopheion*, a ridge; *stoma*, a mouth), crested at the aperture; cp. *strophiolate.*

lorate (Gr. *loron*, a thong), strap-shaped; syn. *ligulate.*

loricate (L. *lorica*, a coat of mail), covered by a shell or by horny plates or scales.

lotus or **water-lily family**, Nymphæaceæ.

lower, see *anterior.*

lubricous (L. *lubricus*, slippery), smooth, slippery; cp. *glabrous, lævigate, unctuose.*

lucid (L. *lucidus*, bright, clear), with a shining surface; syn. *fulgid, nitidous*; cp. *lævigate.*

lunate (L. *luna*, the moon), like a half-moon; also crescent-shaped; cp. *arcuate, crescentic, semi-lunate.*

lupuline (L. *lupus*, the hop plant), relating to the hop plant; resembling a head of hops.

lurid (L. *luridus*, livid), dingy brown, like the petals of Aristolochia or Birthwort.

lusus (L. sport), a monstrosity; a variation from the usual form; syn. *sport.*

luteous (L. *lutum*, a plant used for dyeing yellow), saffron-yellow: **luteolous**, yellowish: **lutescent**, becoming faintly yellow; cp. *crocate.*

lycotropous (Gr. *lukos*, a door-knocker; *tropé*, a turning), said of an orthotropous ovule when bent with an open curve; syn. *lecotropous*; cp. *campylotropous.*

lyrate (L. *lyra*, a lyre), lyre-shaped; said of a pinnatifid leaf with terminal lobe large and one or more of the lower pairs small: **lyrately-pinnate**, pinnate

with terminal pair of leaflets large and the other pairs diminishing in size towards the base.

M

mace (L. *macis*, a spice), the dried aril of the seed of Myristica officinalis.

macranthous (Gr. *anthos*, a flower), long flowered.

macro (Gr. large or long), prefix.

macrocephalous (Gr. *kephalé*, the head), large headed.

macrophyllous (Gr. *phullon*, a leaf), with long leaves or leaflets.

macropodous (Gr. *pous*, a foot), having a long stalk (syn. *longipes*); with a large radicle, *i.e.*, with the part below the cotyledons (hypocotyl) so enlarged as to form the bulk of the embryo.

macrotherm, see *megatherm*.

maculate (L. *macula*, a spot), spotted, stained or blotched; cp. *inquinant, marmorate, notate, sorediate*.

madder, the root of Rubia tinctoria yielding various pigments as burnt, rose, brown, and orange madder.

magenta, pale crimson with a tinge of blue; cp. *mauve, phenicine*.

Malay-camphor family, Dipterocarpeæ.

male (L. *mas*, a male), said of a flower with stamens but no pistil; indicated by the sign ♂; syn. *staminate*; cp. *female, neuter*.

malic (L. *malum*, an apple), relating to apples: —**acid**, a vegetable acid found abundantly in apples; cp. *citric, aspartic, meconic, picric, tartaric*.

malicorium (L. *malum*, an apple; *corium*, skin), the rind of the pomegranate.

malleolus (L. a small hammer), a hammer-shaped slip of a vine; a mallet-shoot; syn. *layer*: **malleolate**, with mallet-shoots; cp. *pampiniform*.

mallococcous (Gr. *mallos*, a fleece; *kokkos*, a berry), with downy fruits.

mallow family, Malvaceæ.

malpighiaceous, a term applied to hairs fixed at the middle and tapering to both ends like those of Malpighia.

mamilla pl.-æ (L. a nipple or teat), a granular prominence like those on some pollen grains: **mamillate mamillated mamilar mamillary**, with hemispherical prominences each with a teat-like process at top; hence Mamillaria, the Nipple-cactus; cp. *papillar*.

mammose mammiform (L. *mammæ*, the breasts; *forma*, shape), shaped like the female breast, conical with rounded apex; cp. *mastoid, thelephorous, umbonate*.

mancus (L. maimed), wanting, incomplete.

mango family, Anacardiaceæ.

mangrove family, Rhizophoreæ.

manicate (L. *manica*, a long sleeve), having an indumentum of matted scales or pubescence so thick and interwoven that it can be stripped off like a sleeve.

manifest (L. *manifestus*), evident, visible; cp. *distinct, obscure*.

manubriate (L. *manubrium*, a handle), handle-like; with a handle-like appendage.

marcescent (L. *marcesco*, I begin to droop), withering without falling off, as the petals of certain flowers; cp. *emarcidate, tabescent*.

marginate (L. *margo*, a border), having a border distinct as to texture or appearance; cp. *limbate, limitate*: **marginal**, at margin.

marginicidal (L. *margo*, a margin; *cædo*, I divide), a form of dehiscence of a ripe carpel, the valves breaking away at their common junction with the dissepiments and leaving the latter attached to the axis; syn. *marginicidally septifragal*; cp. *septifragal, loculicidal, septicidal*.

maritime (L. *maritimus*, relating to the sea), growing on the sea-coast; syn. *littoral*; cp. *riparian*: **marine** (L. *mare*, the sea) growing in the sea; cp. *pelagic, terrestrial*.

marmorate (L. *marmor*, marble), marbled; marked with veins and shades of colour; cp. *maculate, etc*.

marsh plant, see *kalophyte, paludose, uliginose*.

marvel-of-Peru family, Nyctaginaceæ.

mas (L.), *male*.

masked, *personate*.

mastoid (Gr. *mastos*, a breast; *eidos*, a likeness), nipple-like; cp. *mamillate, mammose*.

matrix (L. the womb), the soil that nourishes the roots of plants; the body

on which parasities grow: adj. **matrical.**

mattulla (L. dim. of *matta*, a mat of rushes), the fibrous matter at the base of, or covering, the petioles of some palms; syn. *reticulum*.

matuline (L. *matulinum*, at early morn), opening only in the morning, as certain flowers; cp. *memnonious, vespertine, pomeridian*.

maturation (L. *maturus*, ripe), the time of, or the act or process of ripening; cp. *fertilisation*: **mature**, ripe.

mauve (L. *malva*, a mallow), light purple, or pale blue with a tinge of red; cp. *magenta*.

mealy, *farinaceous, farinose*: **—pubescence**, *canescence*.

meconic acid (Gr. *mekon*, a poppy), a vegetable acid contained in the juice of the poppy; cp. *citric, etc.*: **meconium**, opium.

medial median (L. *medius*, the middle), in, attached to, or relating to the middle; in the plane of bract and axis (syn. *antero-posterior*; cp. *lateral*): **median bracteole**, one inserted at the middle of the pedicel; cp. *sub-, infra-* and *supra-median*: **median chorisis**, the multiplication of a morphologically single organ in the medial plane; syn. *parallel, vertical, transverse* applied to *chorisis* q.v.: **median zygomorphous**, capable of division into two similar halves by a plane passing through the middle; see *zygomorphous*.

medifixed (L. *medius*, the middle), said of an anther attached to the top of the filament at the middle; cp. *basifixed, dorsifixed, adnate, incumbent, versatile*.

medulla (L. marrow), the pith, or central portion of a young stem: **medullary**, relating to the pith: **—rays**, vertical or longitudinal plates of cellular tissue connecting the pith and cambium layer: **—sheath**, a cylindrical layer of spiral ducts around the pith.

mega- (Gr. *megas*, great), prefix.

megatherm (Gr. *thermé*, heat), plants requiring a high temperature; syn. *macrotherm*: **megistotherm** (Gr. *megistos*, very great) plants requiring an extremely high temperature.

meio- (Gr. *meion*, less), prefix; cp. *pleio-*.

meiophyllous (Gr. *phullon*, a leaf), with one or more of the leaves of a whorl suppressed.

meiostemonous (Gr. *stemon*, the warp of a loom), with stamens not equal in number to, nor a multiple of the petals.

meiotaxy (Gr. *taxos*, arrangement), the complete suppression of a flower-whorl.

mela, melan-, melano- (Gr. *melan*, black), prefix.

melanophloia (Gr. *phloios*, bark), the condition of having black bark.

melanophyllous (Gr. *phullon*, a leaf), with dark-coloured leaves.

melanoxylon (Gr. *xulon*, wood), with black wood.

melinous (L. *mel*, gen. *mellis*, honey), of the colour of honey: **melleous**, of the taste or odour of honey; cp. *saccharine*: **melliferous** (L. *fero*, I bear), honey-bearing: **melligo**, honey-dew.

member (L. *membrum*, a limb), one part or division of an organ, as a petal of a corolla.

membranous membranaceous (L. *membrana*, a film), thin pliable and somewhat transparent; cp. *scarious, herbaceous*: **membrane**, a thin skin or layer of cellular tissue.

memnonious (L. *memnonius*, eastern), opening at dawn or early in the morning only, as certain flowers; cp. *matuline*.

meniscoid (Gr. *meniskos*, a crescent; *eidos*, likeness), crescent-shaped; concave on one side, convex on the other; syn. *crescentic, concavo-convex*; cp. *lunate, lenticular*.

menstruum (L. lasting a month, from *mensis*, a month), any liquid used as a solvent.

mentum (L. the chin), a term for the connate lateral sepals of Orchids.

merenchyma (Gr. *meros*, a part; *engchuma*, an infusion), cellular tissue composed of rounded cells.

mericarp (Gr. *meros*, a part; *karpos*, fruit), one of the dry one-seeded carpels of a *cremocarp*; syn. *hemicarp*; cp. *schizocarp*.

merismatic (Gr. *merismos*, division), formed by internal separation into new cells or segments; dividing into similar parts; cp. *chorisis*.

meristem (Gr. *meristos*, divided), tissue of cells capable of reproducing themselves by division; the generative or embryonic tissue formed at the end of young stems, roots, etc.; see *periblem*.

merithallus (Gr. *meros*, a part; *thallos* a young shoot), a term for *internode*:

merithalli, the three main parts of a plant., root, stem and leaves.

meso- (Gr. *mesos*, middle), prefix.

mesocarp (Gr. *karpos*, fruit), the middle layer of a pericarp; cp. *exocarp*, *endocarp*.

mesochilium (Gr. *cheilos*, the lip), the middle portion of the labellum of an orchis.

mesophlœum (Gr. *phloios*, bark), the middle or green layer of the bark; cp. *epiphlœum*, *endophlœum*.

mesophyllum (Gr. *phullon*, a leaf), the parenchyma or cellular tissue between the upper and lower epidermis of leaves; syn. *diachyma*, *diploe*.

mesosperm (Gr. *sperma*, seed), the middle coat of a seed, if there be three distinct coats; cp. *testa*, *tegmen*.

meta- (Gr. beyond), prefix.

metabolism (Gr. *ballo*, I throw), the chemical changes in the protoplasm, or those caused by it in other substances.

metamorphosis metamorphy (Gr. *morphé*, shape), the change from one organ into another, as stamens into petals or pistils; cp. *morphosis*: adj. **metamorphous**.

metaphery (Gr. *phoreo*, I bear), displacement of organs.

metastasis (Gr. *stasis*, a placing), the complete changes undergone in a plant by the elaborated sap.

meteoric (Gr. *meteoros*, raised high above the earth), said of flowers the expansion of which is dependent on the state of the weather.

micropyle (Gr. *mikros*, small; *pulé*, a gate), a pore; the mark on or passage through the seed-coat, answering to the foramen of the ovule; see *foramen*.

midrib, the main vascular bundle, central rib, or nerve of a leaf forming a continuation of the leaf-stalk or petiole; syn. *costa*.

mignonette or **weldwort family**, Resedaceæ.

milkweed family, Asclepiadeæ.

milkwort family, Polygaleæ.

miniate (L. *miniatus*, of the colour of red-lead or cinnabar), vermilion; syn. *cinnabarine*.

minute (L. *minutus*, small), very small.

miostemonous, see *meiostemonous*.

mistus mixtus (L. *misceo*, I blend), a cross-breed: **mixed panicle**, an irregularly branched flower-cluster the main axis being racemose and the secondary and tertiary axes of a different arrangement or anthotaxy; see *panicle*.

mitræform mitriform (L. *mitra*, a head-dress; *forma*, shape), mitre-shaped; conical with hollow base, and cleft on top.

mixed, see *mistus*.

mobile (L. *mobilis*), movable; cp. *versatile*, *gyrans*, *vibratile*: **mobility**, power of motion as in irritable or sensitive leaves.

modioliform (L. *modiolus*, the nave of a wheel), shaped like the nave of a wheel.

moist, *humid*.

molecular (L. *moles*, a heap; dim. *moleculus*), consisting of minute particles.

molendinaceous (L. *mola*, a mill), windmill-shaped; with wings projecting from a convex surface.

mollis (L. soft), tender, flexible.

mon-, ***mono-*** (Gr. *monos*, alone, single), prefix.

monad (Gr. *monas*, unity), a primary cell; an organism of the simplest structure.

monadelphous (Gr. *adelphos*, a brother), having stamens united by their filaments into one set, phalange, tube or column; syn. *synandrous*, *symphistemonous*; cp. *di-*, *tri-*, *poly-adelphous*, *syngenesious*.

monandrous (Gr. *aner*, a male), with a single stamen; cp. *synandrous*.

monanthous (Gr. *anthos*, a flower), one-flowered.

monembryonic (Gr. *embruon*, an embryo), with a single embryo; cp. *polyembryonic*.

moniliform (L. *monile*, a necklace; *forma*, shape), necklace-shaped; cylindrical and contracted at intervals; syn. *torulose*; cp. *phleboidal*, *catenulate*, *strangulated*.

monocarpellary (Gr. *karpos*, fruit), consisting of one carpel; cp. *polycarpellary*: **monocarpian monocarpic monocarpous**, once fruiting only; syn. *monotocous*; cp. *polycarpic*.

monocephalous (Gr. *kephalé*, the head), with a single flower-head or capitulum; cp. *polycephalous*.

monochasium (Gr.), a cymose flower-cluster with only one lateral axis constantly developed, the internodes seemingly simple but really superposed (see *sympode*); this kind of cluster includes the following forms, *bostryx, cincinnus, rhipidium* and *drepanium*, cp. *dichasium, pleiochasium, uniparous.*

monochlamydeous (Gr. *chlamus*, a garment), with the perianth of the flower simple, *i.e.*, consisting of only calyx or only corolla; cp. *a-, di-chlamydeous, imperfect.*

monoclinous (Gr. *kliné*, a bed), with both stamens and pistil; syn. *2-sexual, hermaphrodite, perfect*; cp. *diclinous.*

monocotyledonous (Gr. *kotuledon*, a cup-shaped hollow), having but one cotyledon or seed-leaf; hence **Monocotyledonæ**; cp. *dicotyledonous.*

monocystic (Gr. *kustis*, a bladder), with only one cell or cavity; syn. *mono-* or *uni-locular.*

monœcious monoicous (Gr. *oikos*, a house), having the stamens and pistil on separate flowers on the same plant; cp. *di- tri- œcious*: **monoecio-polygamous**, with male, female and hermaphrodite flowers but with a tendency to become monœcious; syn. *polygamo-monœcious.*

monogamous (Gr. *gamos*, marriage), having the stamens united by their anthers, hence **Monogamia**, a Linnæan order of the class Syngenesia, the flowers being solitary; syn. *syngenesious*; cp. *monadelphous.*

monograph (Gr. *grapho*, I write), a systematic account of a single genus, order or group; cp. *flora, prodromus.*

monogynous (Gr. *gune*, a female), having but one style or sessile stigma, hence **Monogynia**, a Linnæan order; cp. *monostylous.*

monolocular (L. *loculus*, a chest), one-celled; syn. *monocystic, unilocular*; cp. *monothecous.*

monomerous (Gr. *meros*, a part), having only one member, as a flower with only one member in each whorl; cp. *di-, trimerous, etc.*

monopetalous (Gr. *petalon*, a petal), with the petals united wholly or partially; syn. *gamopetalous.*

monophyllous (Gr. *phullon*, a leaf), with but one leaf or membrane.

monopode monopodium (Gr. *pous*, the foot), a simple axis prolonged by means of a terminal bud; cp. *sympode*: adj. **monopodial.**

monopterous (Gr. *pteron*, a wing), one-winged.

monopyrenous (Gr. *puren*, the kernel), with one pyrene.

monosepalous (Gr. *sepalon*, a sepal), with united sepals; syn. *gamosepalous.*

monosis (Gr. *monos*, one), the isolation of an organ.

monospermous (Gr. *sperma*, a seed), one-seeded.

monostachyous (Gr. *stachus*, a spike), with the flowers arranged on one spike.

monostichous (Gr. *stichos*, a row), arranged in one vertical row.

monostylous (Gr. *stulos*, a pillar), with a single style; cp. *monogynous.*

monosymmetrical (Gr. *sun*, with; *metron*, a measure), capable of division into two exactly corresponding parts by only one plane; syn. *zygomorphous*; cp. *polysymmetrical.*

monothecous (Gr. *theké*, a case), with one cell, theca or loculament in the anther; cp. *monolocular.*

monotocous (Gr. *tokos*, interest), fruiting once only; syn. *monocarpic*; cp. *polytocous.*

monotypic (Gr. *tupos*, a figure), term used for a genus consisting of only one species.

monster monstrosity (L. *monstrum*, a prodigy), an abnormal development; see *teratology.*

moon-seed family, Menispermaceæ.

mordant (L. *mordax*, biting), any substance used to render a dye permanent or brilliant; any adhesive substance used for fixing gold leaf to a surface.

morphology (Gr. *morphé*, form; *logos*, a discourse), a part of Botany which deals with the plant form, and the growth and development of the distinct members, on the basis of some typical form or forms; the study of plant forms based on unity of type; cp. *homology.*

morphosis (Gr. *morphé*, form), the mode of development of an organ; cp. *metamorphosis.*

moschate (Gr. *moschos*, musk), having the odour of musk.

mouth, *faux.*

mucedinous (Gr. *mukes*, a mould), mould-like; syn. *fungoid.*

mucilaginous mucous (L. *mucus*, a discharge from the nose), slimy; cp. *viscid*: **mucilage**, a slimy substance found in vegetables; a solution of gummy matter: **muciparous** (L. *pario*, I bring forth), containing or secreting mucilage.

mucro (L. a sharp point), a short straight stiff and sharp point abruptly terminating an organ; cp. *acumen, arista, cusp*: **mucronate**, tipped with a mucro, as some leaves; cp. *acidote, spinescent*: dim. **mucronulate.**

muddy, *limose.*

multi- (L. *multus*, many), prefix.

multicipital (L. *caput*, the head), having many shoots or stems from the crown of one root.

multicostate (L. *costa*, a rib), many-ribbed.

multifarious (L. *multifarius*, manifold), in many vertical ranks or longitudinal rows; syn. *polystichous*; cp. *multiseriate.*

multifid (L. *fidus*, cleft), divided halfway down or more into many lobes or segments; see *cleft.*

multiflorous (L. *flos*, a flower), many-flowered.

multijugate (L. *jugum*, a yoke), having many pairs of leaflets.

multilocular (L. *loculus*, a chest), many-celled.

multiparous (L. *pario*, I produce), said of a cyme bearing three or more lateral axes; see *pleiochasium*; cp. *uni-* and *biparous.*

multiple fruit, one resulting from a cluster of flowers and aggregated into one mass, as the cone, fig, pine-apple, mulberry; see *sorosis, syconium, etc.*; cp. *aggregate, accessory.*

multiplication (L. *plico*, I fold), an increase of parts or organs beyond the ordinary number, either *regular, i.e.*, by an increase in the number of whorls, or by *chorisis*, q. v.; syn. *augmentation.*

multiseptate (L *septum*, a barrier), with many dividing walls, septa, or dissepiments.

multiseriate (L. *series*, a succession), in many series or rows, lengthwise or transverse; cp. *multifarious.*

mural (L. *murus*, a wall), relating to or growing on a wall: **muriform** (L. *forma*, shape), tissue resembling bricks in a wall; syn. *tabular*; see *pinakenchyma.*

muricate (L. *muricatus*, full of sharp points), rough with short sharp points or protuberances; cp. *echinate, verrucose.*

murine (L. *mus*, gen. *muris*, a mouse), mouse-coloured; reddish grey.

muscariform (L. *muscarius*, a fly-brush; *forma*, shape), shaped like a fly-brush.

musciform (L. *muscus*, moss; *forma*, shape), like moss.

mutable (*mutabilis*, changeable), changing in form or colour.

muticous (L. *muticus*, curtailed), blunt; without a pointed process; awnless; syn. *exaristate*; cp. *obtuse.*

mycorhiza (Gr. *mukes*, a fungus; *rhiza*, a root), a root with a mantle of fungus without which it makes no healthy growth, a case of symbiosis.

mycropyle, see *micropyle.*

myrabolam family, Combretaceæ.

myrmecophilous (Gr. *murmex*, gen. *murmekos*, an ant; *philos*, loved), attracting ants so as to obtain their protection against leaf-eating insects and other enemies, as in the case of some Acacias.

myrrh family, Burseraceæ.

myrtle or **myrtlebloom family**, Myrtaceæ.

N

nacreous (F. *nacre*, mother-of-pearl), with pearly lustre.

naked, wanting in the usual covering, as flowers without perianth (*achlamydeous*), seeds not enclosed in a seed-vessel (*gymnospermous*), testa without aril, pedicels without bracts, etc.; syn. *nudi-, gymno-, psilo-*, in comp.

nanus (L.) dwarf; syn. *pumilus.*

napiform (L. *napus*, a turnip; *forma*, shape), turnip-shaped; solid, narrowed abruptly at both ends and considerably bulging in the centre; syn. *rapaceous*; cp. *fusiform, turbinate.*

narcotic (Gr. *narke*, torpor), producing drowsiness: n. a substance that induces sleep by relieving pain; cp. *anodyne, opiate, soporific.*

narrowed, a term applied to the base of a leaf when tapering: **narrowly retuse**, slightly *retuse*, q. v.

nascent (L. *nascor*, I am born), beginning to grow; in the stage of early development; cp. *rudimentary, dormant, latent.*

natant (L. *natans*, floating), floating on or under water.

natural (L. *natus*, born), formed by nature, opp. to *artificial*: —**order**, a group of genera resembling each other in essential characteristics; syn *family*: —**system**, a method of classifying plants that considers all the essential characteristics; cp. *Linnæan* or *sexual system.*

naucum (L. a nut-shell), a seed with a very large hilum; the fleshy covering of a stone fruit; syn. *sarcocarp*: **naucus**, the valveless fruit of some Cruciferæ; cp. *cremocarp.*

nautiloid (Gr. *nautilos*, a nautilus; *eidos*, likeness), like the shell of a nautilus.

navalis (L.), *marine.*

navel-like, *umbilicate, omphaloid.*

navicular (L. *navicula*, a boat), boat-shaped; syn. *cymbiform*; cp. *carinate.*

nebulose nebulous (L. *nebula*, a mist), misty; clouded.

neck, *collum.*

necklace-shaped, *torulose, moniliform.*

necrosis (Gr. *nekros*, dead), a disease of plants indicated by black spots: **necrogenous** (Gr. *gennao*, I produce), producing death, as certain parasities which kill the plants on which they live.

nectar (L. the drink of the gods), the sweet secretion of flowers from which bees make honey; the sweet secretion from glands on different parts of a plant; **nectariferous** (L. *fero*, I bear), producing nectar: **nectary**, that part of a flower that secretes nectar, a term formerly applied to an abnormal growth or appendage of the flower, as the spur of the violet; see *paracorolla.*

needle-shaped, *acerose.*

nemoral nemorose (L. *nemus*, a grove), growing in groves.

nephroid (Gr. *nephros*, a kidney; *eidos*, likeness), kidney-shaped; syn. *reniform*: **nephritic**, a medicine for relieving kidney-disease.

neroli (Fr.), the essential ethereal oil of orange flowers; cp. *petit grain.*

nerve (L. *nervus*, a nerve), one of the large unbranching veins of a leaf; a subordinate rib or costa (dim. **nervule**); syn. *vein*: **nervate nervose**, having nerves or with nerves prominently developed; syn. *neurose*: **nervation**, the arrangement of nerves in a leaf; see *trinerved, tripli-nerved*; cp. *venation*: **nerved**, see *parallel-nerved.*

netted, *reticulate*: **net-veined**, with the veins of a leaf forming a reticulation or net-work; cp. *parallel-veined*: **network**, *rete, plexus.*

nettle and fig family, Urticaceæ.

neurose (Gr. *neuron*, a nerve), see *nervose.*

neutral neuter (L. *neuter*, neither of two), with neither stamens nor pistil; cp. *male, female.*

nexus (L.), a connection.

nidulant (L. *nidus*, a nest), nestling; partially encased in some covering; embedded in pulp.

nidus (L. a nest), a term applied to surface soil mixed with humus into which seeds fall and germinate.

night-shade family, Solanaceæ.

nigrescent nigricant (L. *niger*, black), nearly black; becoming black: **nigroviridis** (L.), very dark green.

nipple-like, *mastoid.*

nitidate nitidous (L. *nitidus*, glittering), with a smooth and shining surface; syn. *lucid, fulgid*; cp. *lævigate.*

nivalis (L. snowy), growing in or on snow: **niveous**, snow-white.

nixus (L. *nitor*, I rest upon), tendency; affinity, as that of one species to another of the same genus.

nocturnal (L. *nocturnus*, by night), flowering by night or throughout the night; nightly; cp. *diurnal, nyctanthous.*

nodding, *nutant.*

node (L. *nodus*, a knot), that portion of a stem where leaf buds, resulting in a leaf or whorl of leaves, are produced; see *internode*: **nodose**, with swollen joints or knot-like masses; knotty; cp. *moniliform*: dim. **nodulated nodulose**: **nodosity**, a knot-like swelling of the bark.

nomenclature (L. *nomen*, a name; *calo*, I call), the rules and methods of forming botanical names of plants or groups of plants; a branch of phytography; cp. *glossology.*

normal (L. *norma*, a rule), ordinary; according to established rule or natural law; cp. *abnormal*: —**dehiscence**, see *dehiscence.*

nosology (Gr. *nosos*, a disease ; *logos*, a discourse), a study of plant diseases ; syn. *vegetable pathology.*

notate (L. *noto*, I mark), marked with spots or lines ; cp. *maculate, striate.*

notched, *emarginate.*

nothus (L. a bastard), hybrid ; syn. *cross-breed.*

notorhizal (Gr. *notos*, the back ; *rhiza*, a root), having the radicle on the back of the cotyledons, as in Cruciferæ ; cp. *pleurorhizal, incumbent.*

novem (L.), nine.

nucamentum (L. a cluster of hanging nut-like fruits), see *catkin* : **nucamentaceous nucamentous**, having dry one-seeded fruits resembling nuts, as in some Cruciferæ.

nucella nucellus (L. dim. of *nux*, a nut), modern term for *nucleus*, q. v. : **nuciferous** (L. *fero*, I bear), bearing or producing nuts : **nuciform** (L. *forma*, shape), nut-like : filbert-shaped, almost spherical and tapering slightly at each end ; cp. *turbinate* : **nucule**, a small nut ; one of a number of pyrenes enclosed in a dry pericarp ; syn. *nutlet* ; cp. *glans* : **nuculanium**, term for a pulpy fruit containing several stony seeds or nucules and formed from a superior ovary, like the grape and medlar.

nucleus (L. the kernel of a nut), the central portion of an ovule containing the embryo-sac (syn. *nucellus*) ; the central germ of a cell (syn. *cytoblast*) ; the kernel of an ovule or seed formed by the embryo with or without albumen : **nucleolus**, a small solid particle developed within the nucleus of some cells : adj. **nucleolated** : **nuclear**, pertaining to a nucleus : — **plate**, the body of fibrils in the middle of a cell-nucleus prior to its division into two nuclei separated ultimately by a diaphragm or cell-wall : **nucleate nucleated**, having a nucleus.

nudicauline (L. *nudus*, naked ; *caulis*, a stem), said of a stem without leaves.

nudiflorous (L. *nudus*, naked ; *flos*, a flower), with hairless flowers.

nudus (L.), *naked.*

numerous (L. *numero*, I count), very many ; cp. *indefinite.*

nummular (L. *nummus*, coin ; dim. *nummulus*), flat with circular margin like a coin ; in heaps like rolls of coin ; cp. *orbicular.*

nut (L. *nux*), a hard indehiscent one-seeded fruit resulting from a syncarpous or compound ovary ; cp. *berry, drupe, tryma* : **nutlet**, one of the hard one-seeded particles of a syncarpous fruit having a dry pericarp ; cp. *pyrene, coccus, nucamentous.*

nutant (L. *nuto*, I nod), nodding ; curving down ; cp. *cernuous, pendulous, temulentous* : **nutation**, the curvature of an organ due to unequal growth on either side (see *epinasty, hyponasty*) ; spontaneous regular movements in plants.

nutbrown, *spadiceous.*

nutmeg (L. *nux moschata*, a spicy nut), the kernel of the seed of Myristica fragrans : **nutmeg family**, Myristiceæ.

nutritive organs (L. *nutrio*, I nourish), the root, stem and leaves of a plant ; cp. *reproductive organs.*

nyctanthous (Gr. *nux*, night ; *anthos*, a flower), flowering at night ; cp. *nocturnal.*

nyctitropic (Gr. *nux*, night ; *trope*, a turning), changing position at night or under the influence of darkness, as the folding of leaves or leaflets ; cp. *tuitant.*

O

oak and chestnut family, Cupuliferæ.

ob- (L. reversed), prefix.

obclavate (L. *clavus*, a club), club-shaped with the attachment at the thicker end.

obcompressed (L. *con*, together ; *pressus*, pressed), flattened antero-posteriorly, *i.e.*, from front to back, like the achenes of Compositæ ; cp. *compressed, depressed.*

obconic obconical (L. *conus*, a cone), conical with the attachment at the pointed end.

obcordate (L. *cor*, the heart), inversely cordate, said of a leaf when of two broad lobes divided by a strong notch at apex ; cp. *cordate.*

obcurrent (L. *curro*, I run), with partial dissepiments in a one-celled ovary extending to the axis making the ovary many-celled.

obdiplostemonous (Gr. *diploos*, double ; *stemon*, a stamen), having double the number of stamens as petals in two whorls, each stamen of the outer whorl inserted opposite to a petal ; cp. *diplostemonous.*

obimbricate (L. *imbrex*, a hollow roofing tile), overlapping downwards; cp. *imbricate*.

oblanceolate (L. *lancea*, a lance), tapering at both ends but broader near the apex; cp. *lanceolate*.

oblate (L. *ob*, against; *latus*, broad), solid and depressed at top and bottom, like an orange.

obligate (L. *obligatus*, bound), essentially necessary:— **parasite**, one that can only fully develop as a parasite.

oblique (L. *obliquus*, sidewise), slanting; unequal sided; with the divisions of a leaf on either side of the midrib unequal, as in Begonia (syn. *inæquilateral*): —**nerves**, those making an acute angle with the midrib.

oblong (L. *oblongus*), elliptic with obtuse ends and two or three times as long as broad.

obovate (L. *ovum*, an egg), egg-shaped in outline with the broader end towards the apex: **obovoid** (Gr. *eidos*, likeness), inversely solid egg-shaped.

obpyramidal (Gr. *puramis*), inversely pyramid-shaped.

obscure obscured obscurate (L. *obscurus*, dark), hidden, undistinguishable; syn. *occultate* (cp. *faint*); of a dark or dingy colour.

obsolete (L. *obsoletus*, grown out of use), imperfectly developed; cp. *abortive*: **obsoletely**, imperfectly.

obsubulate (L. *subula*, an awl), narrow, pointed at base and widening somewhat at apex; cp. *subulate*.

obtectus (L.), covered; cp. *invested*, *obvallate*.

obturator (L. *obturo*, I close), a plug; a term for the thickened funicle or placenta in Olacineæ.

obtuse (L. *obtusus*, blunt), blunt or rounded at the apex: dim. **obtusiusculate**.

obvallate (L. *obvallo*, I wall round), protected by a cover on all sides.

obverse obversely (L. *ob*, against; *versus*, turned), turned from the apex towards the base: **obverse radicle**, one that points near the hilum, as in anatropous ovules.

obvolute (L. *volvo*, I roll), see *convolute*.

occultate (L. *occultus*, concealed), hidden; syn. *obscure*.

ocellate (L. *ocellus*, a little eye), with a round patch or ring of colour with a spot of different colour in the centre; syn. *oculate*; see *eye*; cp. *soredíate*.

ochraceous ochreous (Gr. *ochros*, pale yellow), pale yellow with a tinge of brown; cp. *ochraleucous*.

ochrea ocrea (L. *ocrea*, a metal greave), a membranaceous tubular stipule or pair of united stipules forming a legging-like sheath through which the stem passes, as in Polygonum: adj. **ochreate ocreate**; syn. *synochreate*; cp. *vaginate*.

ochroleucous (Gr. *ochros*, pale yellow; *leukos*, white), very pale yellow-ochre; cp. *ochreous*.

ochrophloia (Gr. *ochros*, pale yellow; *phloios*, bark), yellow bark.

octa- *octo-* (Gr. *okto*, eight), prefix.

octagynous (Gr. *gune*, a female), with eight styles or sessile stigmas.

octamerous (Gr. *meros*, a part), with eight parts; having eight members in each whorl of the flower.

octandrous (Gr. *aner*, a male), with eight stamens; syn. *octostemonous*.

octofarious (L. *octofarius*, eight-fold), in eight vertical ranks; syn. *octostichous*.

octoni (L.), in eights.

octopetalous (Gr. *petalon*, a petal), with eight petals.

octosepalous (Gr. *sepalon*, a sepal), with eight sepals.

octostemonous (L. *stemon*, the warp of a loom), with eight stamens; syn. *octandrous*.

octostichous (Gr. *stichos*, a row), in eight vertical ranks; syn. *octofarious*.

oculus (L. an eye), see *eye*: **oculate**, see *ocellate*.

odd-pinnate, *impari-pinnate*.

odontoid (Gr. *odons*, a tooth; *eidos*, likeness), tooth-like; cp. *dentate*.

odoratous odorous (L. *odor*, an odour), sweet smelling; cp. *olens*.

officinal (L. *officina*, a shop), sold in shops; used in medicine or the arts.

offset, a short lateral shoot from the root bearing leaves at its extremity; cp. *sucker*, *stolon*, *runner*.

olax family, Olacineæ.

oleaceous (L. *oleum*, oil), belonging to the Olive family: **oleaginous**, fleshy and oily; cp. *fleshy*: **oleo-resin**, a vegetable balsam formed by the natural mixture of a resin and an essential oil.

oleaster family, Elæagnaceæ.

olens (L. oleo, to smell), with an odour good or bad; cp. *aromatic, fœtid, graveolens, odoratus, suaveolens.*

oleraceous (L. *olus*, an edible garden herb), edible as applied to pot-herbs; cp. *esculent.*

olig-, oligo- (Gr. *oligos*, few), prefix.

oligandrous (Gr. *aner*, a male), with less than twenty stamens; cp. *indefinite, polyandrous.*

oliganthous (Gr. *anthos*, a flower), few-flowered; cp. *polyanthous.*

oligomerous (Gr. *meros*, a part), with few members; cp. *polymerous.*

oligospermous (Gr. *sperma*, a seed), few-seeded; cp. *polyspermous.*

olivaceous (L. *oliva*, an olive), having the quality of olives; of an olive colour, dusky green: **olive family**, Oleaceæ.

omphalodium (Gr. *omphalos*, the navel; *duo*, I put on), the mark on the hilum showing where the vessels passed that conveyed nourishment to the seed: **omphaloid** (Gr. *eidos*, likeness), navel-like; syn. *umbilicate.*

one-foliolate (L. *foliolum*, a leaflet), said of a compound leaf with all but one leaflet suppressed or wanting; syn. *unifoliolate.*

one-sided, *unilateral, declinate.*

ontogeny (Gr. *on*, gen. *ontos*, being; *gennao*, I produce), the history of the development of an organized being; cp. *organogeny, phylogeny.*

opaque (L. *opacus*, dark), with a dull, not shining, surface; cp *lucid.*

open, expanded; with the members or parts not close together; cp. *diffuse.*

operculum (L. a lid; from *operio*, I cover over), a lid; the upper part of a capsule that opens transversely (see *pyxis*); a valve by which some anthers discharge their pollen: **opercular**, relating to a lid: **operculate**, opening by a lid; syn. *pyxidate.*

opium (L. *opium*; Gr. *opion*), the milky juice obtained from the unripe capsules of the opium poppy (Papaver somniferum), and thickened by evaporation; syn. *meconium*: **opiate**, any medicine, containing opium, that induces sleep; cp. *narcotic, soporific.*

opposite (L. *ob*, against; *pono*, I place), set over against; inserted before: —**leaves**, a pair at a node, one on either side the stem; cp. *geminate, alternate, verticillate*: —**stamens**, those inserted before or in front of the petals; syn. *anti-, oppositi-petalous*: —**pinnate**, compound with the leaflets or pinnæ set opposite to each other on the rachis of the leaf: **opposition**, insertion opposite to.

oppositi- (L. *oppositus*, standing against), prefix.

oppositifolious (L. *folium*, a leaf), inserted on the stem opposite a leaf, as the tendrils, when present, of the Vine family.

oppositipetalous (Gr. *petalon*, a petal), inserted opposite a petal in front of the side facing the axis of the flower; syn. *antipetalous.*

oppositisepalous (Gr. *sepalon*, a sepal), inserted opposite a sepal; syn. *antisepalous.*

orange (Arab. *narangi*), a berry with thick rind or peel, the fruit of Citrus aurantium; syn. *hesperidium*; cp. *berry*: —**colour**, red and yellow in equal proportions: —**tawny**, brownish orange: —**family**, Rutaceæ.

orbicular (L. *orbiculus*, a small disc or ball), flat with outline circular or nearly so; syn. *rotund*; cp. *spheric, nummular.*

orchidaceous (Gr. *orchis*, a testicle; hence, a plant with testicle-like roots), relating to the Orchid family (Orchideæ): —**flower**, one with corolla like that of an orchis.

order (L. *ordo*, arrangement), a group of co-related genera, *i.e.*, related to one another by structural characters common to all; cp. *natural order, family*: **ordinal**, relating to the order.

organ pl. **organs** (Gr. *organon*, an instrument), any parts of a plant that have a distinct purpose or function: —**of vegetation**, or **nutrition**, the root, stem and leaves: —**of reproduction**, the parts of the flower, the essential parts being the stamens and pistil; cp. *member.*

organogenesis organogeny (Gr. *organon*, an instrument; *gennao*, I produce), the formation and early development of organs; cp. *ontogeny.*

organography (Gr. *grapho*, I write), the study of organs, their structure, functions and relations; syn. *organology, phytonomy.*

organology (Gr. *logos*, a discourse), see *organography.*

orgyal (L. *orgya*), about six feet long.

ornithophilous (Gr. *ornis*, a bird; *philos*, loved), said of flowers usually

fertilised by pollen borne by birds; cp. *anemophilous, entomophilous.*

ortho- (Gr. *orthos,* straight), prefix.

orthoploceous (Gr. *pleko,* I fold), with incumbent cotyledons folded around the radicle; cp. *spirolobate.*

orthostichies (Gr. *stichos,* a row), vertical ranks or rows of leaves on a stem; two, when the leaves decussate, six, when the whorls are ternate, eight when they are tetramerous, and so on: **orthostichous,** in vertical ranks; see *distichous, etc.*

orthotropous (Gr. *tropé,* a turning), straight; said of an ovule or seed erect or straight with chalaza at the hilum and foramen at the apex; syn. *atropous*; cp. *anatropus, statospermous*: —**radicle,** one directed towards the hilum, as in anatropous ovules; syn. *homotropous*; cp. *antitropous, peritropous, vague.*

os (L. a mouth; dim. *osculum*), an orifice or aperture; cp. *foramen, micropyle*: **osculating,** meeting and closely adhering: n. **osculation.**

oscillatorial (L. *oscillum,* a swing), swinging freely, as stamens when *versatile.*

osmose osmosis (Gr. *osmos,* an impulse), the action or tendency of fluids or gases of different density and in contiguous cells to diffuse through the separating membrane of living vegetable tissue; cp. *endosmose, exosmose, rotation*: adj. **osmotic.**

osseous (L. *os,* a bone; dim. *ossiculum*). of bony texture: **ossiculus,** see *pyrene.*

ostiolate (L. *ostium,* a door; dim. *ostiolum*), having a small aperture; cp. *foraminous*: **ostiole,** a small aperture, as of the conceptacle in Fucaceæ.

outer *anterior*: **outer suture,** see *dorsal suture.*

outgrowth, a general name for any appendage not accounted for by chorisis, such as the corona of flowers, ligule of grasses, hairs, warts, etc.; cp. *process.*

oval (L. *ovum,* an egg), broadly elliptic in outline: **ovate,** elliptic, but broader at base like the outline of a longitudinal section of an egg; cp. *obovate*: —**oblong,** oblong and somewhat ovate; syn. *parabolic*: **ovoid** (Gr. *eidos,* likeness), solid and oval in longitudinal outline; solid-ovate; cp. *obovoid.*

ovary (L. *ovarium,* from *ovum,* an egg), that portion of the pistil that normally contains the ovules; syn. *germen*; cp. *pericarp*: adj. **ovarian.**

ovenchyma (Gr. *oon,* an egg; *engchuma,* tissue), tissue composed of oval cells.

ovule (L. *ovulum,* a little egg), the immature or undeveloped seed in the ovary: **ovulate ovuled ovuliferous** (L. *fero,* I bear), bearing ovules.

oxy- (Gr. *oxus,* sharp, sour), prefix.

oxyacanthous (Gr. *akantha,* a spine), with sharp spines or prickles.

oxycarpous (Gr. *karpos,* fruit), with sharp-pointed fruit; cp. *hebetate.*

oxycoccous (Gr. *kokkos,* a berry), with acid berries.

P

pachy- (Gr. *pachus,* thick), prefix.

pachycarpous (Gr. *karpos,* fruit), with very thick pericarp.

pachynemous (Gr. *nema,* a thread), with thick filaments.

pachyphyllous (Gr. *phullon,* a leaf), with thick leaves; cp. *leptophyllous.*

pagina (L. a page), the surface of any flat body, as a leaf.

paired, *geminate.*

palaceous (L. *pala,* a spade), when the edges of any organ are continued down its support; syn. *decurrent.*

palæo-botany (Gr. *palaios,* ancient; *botané,* herbage), botany of fossil plants.

palate (L. *palatus,* the roof of the mouth), the projection of the lower lip of a personate corolla closing the throat, as in Snapdragon; see *personate.*

pale palea palet (L. *palea,* pl. *-æ,* chaff), the inner glume of the flower of a grass, enclosed in the flowering glume and having two lateral nerves and no midrib; the chaffy scales on the receptacles of many Compositæ: **paleola,** one of the small scales at the base of the ovary of grasses; syn. *lodicule, squamella*: **paleaceous,** chaff-like: **paleolate,** having lodicules or paleolæ.

palisade tissue (L. *palus,* a pole), leaf-tissue beneath the epidermis of the upper surface and consisting of cylindrical chlorophyll-bearing cells.

palleus (L. pale), pale in colour, as pale green or yellow; cp. *pallid.*

palliate (L. *pallium,* a cloak), covered as by a mantle: dim. **paleolate;** cp. *obvallate, invested.*

pallid (L. *pallidus*), pale; of undecided colour: **pallescent,** growing pale; cp. *paleus.*

palm family, Palmæ.

palmaris (L. *palma*, the hand), a palm in length, about 3 inches: **palmate**, with the ribs of the leaf-lobes or leaflets all meeting at the apex of the petiole, the segments like the extended fingers of an open hand; cp. *digitate*: **palmately**, in a palmate manner: —**veined**, see *palmiveined*: **palmati-**, in comp., *palmately*: **palminerved palmiveined**, having ribs diverging from the point of insertion of the leaf; syn. *radiately-veined*; cp. *costate*.

paludose paludinous palustrine (L. *palus*, gen. *paludis*, a swamp), growing in swamps; syn. *uliginose*; cp. *lacustrine, halophytic*.

pampiniform (L. *pampinus*, a tendril, *forma*, shape), in shape like a vine-tendril; cp. *malleolate*.

pandemic (Gr. *pan*, all; *demos*, the people), growing naturally over an entire area.

pandurate panduriform (Gr. *pandoura*, a musical instrument; L. *forma*, shape), fiddle-shaped: **pandurifolious** (L. *folium*, a leaf), with fiddle-shaped leaves.

panicle (L. *panicula*, a tuft), a loose irregularly branched inflorescene usually of the botryose type, the main axis being racemose, the secondary and tertiary ramifications racemose or not; see *mixed panicle*: adj. **panicled paniculate**.

pannose panniform (L. *pannus*, a rag), having the texture or appearance of rough woollen cloth; cp. *felted*.

papery, *papyraceous, chartaceous*.

papilionaceous (L. *papilio*, a butterfly), with a corolla like that of Papilionaceæ, the pea tribe of Leguminosæ.

papillæ (L. nipples), small nipple-like projections: adj. **papillar papillate papillose**; cp. *mamillar, mammose, papulose*.

pappus (L. a woolly-hairy seed), thistle-down (syn. *aigret*); the coronate calyx-limb of the florets of Compositæ, often hairy or downy; the ring of hairs or scales on certain fruits: **pappiferous** (L. *fero*, I bear) **pappose**, bearing a pappus.

papulose papuliferous (L. *papula*, a pustule; *fero*, I bear), covered with minute pimple-like projections; cp. *papillose, pustulate*.

papyraceous (L. *papyrus*, a kind of sedge from the pith-like tissue of which paper was made by the ancients), thin and flexible like paper; syn. *chartaceous*; cp. *coriaceous, pergamentaceous*.

para (Gr. by, about, alongside), prefix.

parabolic (Gr. *ballo*, I throw), *ovate-oblong*.

paracarp (Gr. *karpos*, fruit), the persistent part of a style or stigma; an abortive carpel.

paracorolla (L. *corolla*, a small wreath), a corona or inner appendage of a corolla; see *nectary*; cp. *corona*.

parallel (Gr. *para*; *allelon*, one another), lying side by side and equidistant: —**chorisis**, the multiplication of a morphologically single organ in the medial plane; see *medial*: —**veined** —**nerved**, with simple ribs running from base to apex, or from a strong midrib to margin, more or less parallel, and connected only by minute veinlets, as in most Monocotyledons; syn. *rectinerved*; cp. *recticulated*.

parapetalous (Gr. *petalon*, a petal), said of stamens when one is on either side a petal, but not opposite the sepals, as in many Rosaceæ; cp. *antipetalous, antisepalous*.

paraphyllous (Gr. *phullon*, a leaf), having leafy appendages on the calyx.

paraphyses (Gr. *phuo*, I flow), abortive petals or stamens; the sterile filaments which accompany the sexual organs in Mosses.

parasitic (Gr. *siteo*, I nourish), growing on or in another plant or animal, *i.e.*, on living organic matter, and drawing nourishment from its juices; syn. *hysterophyte*; see *obligatory parasite*; cp. *epiphyte, saprophyte*.

parastemon, see *staminodium*.

parastichies (Gr. *stichos*, a row), oblique or secondary spirals, along which leaves are arranged on a stem, or carpels on an axis, as in pine cones, etc., in addition to the helix or primitive spiral which gives the angular divergence.

parchment-like, *pergamentaceous*.

parenchyma (Gr. *para*, by; *engchuma*, tissue), cellular tissue, consisting of blunt, rounded, cubical or polygonal thin-walled cells; cp. *prosenchyma*: **parenchymatous**, composed of cellular tissue.

parietal (L. *paries*, pl. *parietes*, the wall of a city), relating to the inner wall; attached to the side of an organ,

as ovules or placentas on the inner wall of the ovary; cp. *axile, basal, free-central*: **parietes**, the enclosing walls of any cavity; the inner wall of the ovary or fruit: **parietiform** (L. *forma*, shape), *tabular*, as certain roots.

paripinnate (L. *par*, equal; *pinna*, a feather), see *abruptly-pinnate*.

parthenogenesis (Gr. *parthenos*, a virgin; *gennao*, I produce), the abnormal production of fertile or perfect seed without impregnation by pollen; cp. *agamogenesis, apogamy*.

partial (L. *pars*, a part), subordinate; syn. *secondary*; cp. *common, general*: —**involucre**, see *involucel*: —**petioles**, the petiolules of a compound leaf: —**umbel**, see *umbellule*.

partible (L. *partior*, I divide), separable; at length separating: **partite**, divided but not quite to the base; cp. *lobed*: **partition**, a division of a partite leaf; a separating wall of tissue (syn. *dissepiment*).

particoloured, partly of green and of another colour; see *variegated, discolorous*.

parvi- (L. *parvus*, small), prefix.

passion-flower family, Passifloreæ.

patchy, *blotched*.

patelliform, see under *pateriform*.

patent (L. *patens*, open), wide open; widely spreading; syn. *diffuse*; cp. *patulous*: **patently hairy**, with wide spreading hairs: **patentissimus**, very widely spreading; syn. *effuse*.

pateriform (L. *patera*, a shallow dish; *forma*, shape), saucer-shaped: dim. **patelliform** (L. *patella*, a small plate), circular in outline with marginal rim; cp. *scutelliform*.

pathogenous (Gr. *pathos* suffering: *gennao*, I produce), producing disease: **pathology** (Gr. *logos*, a discourse), the study of disease: —**of plants**, *nosology*.

patulous (L. *patulus*, standing open), extended, somewhat spreading; cp. *patent, diffuse*.

pauci- (L. *paucus*, few), prefix.

pauciflorous (L. *flos*, a flower), few-flowered; syn. *spananthous*.

pea-shaped *pisiform*.

pear-shaped, *pyriform, dacryoid*.

pectinate (L. *pecten*, a comb), with close and narrow segments like the teeth of a comb; cp. *ctenoid, laciniate*.

pedate (L. *pedatus*, footed; from *pes*, a foot), with the leaf-lobes or leaflets arranged in a palmate manner and the lateral lobes or leaflets divided: **pedati-lobed**, lobed in a pedate manner: **pedalis**, a foot long.

pedicel (L. *pes*, a foot; dim. *pediculus*), the ultimate stalk supporting one single flower of an inflorescence; cp. *peduncle, petiole*: **pedicelled pedicellate**, having a pedicel; cp. *sessile*.

peduncle (L. *pedunculus*, a little foot), the stalk of a flower or of a flower cluster; in branching inflorescences this is the general peduncle branching into partial peduncles until the pedicels are reached; the stalk of a fruit or of a fruit-cluster: **peduncled pedunculate**, having a peduncle; cp. *pedicellate, sessile*.

pelagic (Gr. *pelagos*, the sea), growing in the open sea; cp. *marine, maritime*.

pellicle (L. *pellis*, dim. *pellicula*, skin), a thin skin or film; cp. *cuticle, epidermis*.

pellucid (L. *perlucidus*), transparent: —**punctate**, dotted with pellucid glands or depressions; cp. *translucent*.

peloria (Gr. *pelor*, a monster), a flower normally irregular made regular by abnormal development, as a 5-spurred Linaria.

peltate (L. *pelta*, a shield), shield-shaped, as some stigmas; said of a flat body, as a leaf, attached to a stalk by the lower surface and not by the margin or base: —**hairs**, those attached to a stalk at or near their middle: **peltideous peltiform** (L. *forma*, shape), shield-like; syn. *thyroid*; cp. *clypeate, scutate*: **peltinerved**, with nerves radiating all round from a common centre; cp. *penninerved palminerved*.

pelviform (L. *pelvis*, a basin; *forma* shape), basin-shaped.

pendent (L. *pendeo*, I hang), hanging vertically downward; syn. *suspended*: **pendulous**, hanging downward as if through weakness of the support; inclined downward, as ovules in some ovaries; syn. *dependent*; cp. *cernuous, nutant, erect*.

penicellate (L. *penicillum*, a painter's brush), bordered or tipped with brush-like hairs; tufted; cp. *aspergilliform, barbate, ciliate*: —**stigma**, one divided into a tuft of hair-like branches.

pennate (L. *penna*, a feather), see *pinnate*: **penninerved penniveined**,

having the principal nerves or veins of a leaf running straight from midrib to margin in a pinnate manner; syn. *pinnately-* or *feather-veined*; cp. *palminerved, peltinerved, pectinate.*

penta- (Gr. five), prefix.

pentacarpellary (Gr. *karpos,* fruit), consisting of five carpels.

pentachænium (Gr. *a,* not; *chaino,* I open), a cremocarp-like fruit composed of five achenes; see *achene.*

pentadelphous (Gr. *adelphos,* a brother), having the stamens united by their filaments into five sets or phalanges; cp. *monadelphous; etc.*

pentagynous (Gr. *gune,* a female), with five styles or sessile stigmas.

pentamerous (Gr. *meros,* a part), with five members; having five members in each whorl of the flower; cp. *quinate.*

pentandrous (Gr. *aner,* a male), with five stamens.

pentapetalous (Gr. *petalon,* a petal), five-petalled.

pentaphyllous (Gr. *phullon,* a leaf), five-leaved; with five leaves or separate divisions in the perianth.

pentapterous (Gr. *pteron,* a wing), five-winged.

pentasepalous (Gr. *sepalon,* a sepal), with five sepals.

pentastichous (Gr. *stichos,* a row), in five vertical ranks; syn. *quinquefarious.*

pepo peponida peponium (L. *pepo*; Gr. *pepon,* a large melon), a special form of berry, succulent, one-celled, with many seeds on three parietal placentas, the characteristic fruit of Cucurbitaceæ.

pepper family, Piperaceæ.

percurrent (L. *percurro,* I run through), extending throughout the entire length.

perembryo (Gr. *pera,* a sac; *em,* in; *bruon,* I shoot), that portion of a monocotyledonous embryo that invests the plumule and radicles.

perfect flower, one that has both stamens and pistil; syn. *hermaphrodite, bisexual, monoclinous, teleianthous*; cp. *androgynous*: **perfect stamen,** one that is furnished with pollen; syn. *fertile*; cp. *imperfect, empty.*

perfoliate (L. *per,* through; *folium,* a leaf), said of a sessile leaf the basal lobes of which pass round the stem and are congenitally united on the other side of it, the stem appearing to pass through the leaf; cp. *connate-perfoliate, amplexicaul.*

perforate (L. *per,* through; *foro,* I pierce), pierced with holes; syn. *pertuse, foraminous*; cp. *cribrose, etc.*

pergameneous pergamentaceous (L. *pergamena,* parchment), of the texture of parchment; cp. *chartaceous, coriaceous.*

peri- (Gr. around), prefix.

perianth (Gr. *anthos,* a flower), the floral envelopes consisting of sepals or petals or both; a term specially used when there is little or no difference in size and appearance between sepals and petals, as in Liliaceæ; syn. *perigone, perigonium*: —**leaves,** parts or segments of the perianth.

periblem (Gr. *periblema,* a cloak), the layer of cells or embryonic tissue below the outermost layer at apex of stem or root, and developing into the cortex; cp. *dermatogen, meristem.*

pericarp (Gr. *karpos,* fruit), the ripened ovary or seed-vessel with its constituent parts, consisting sometimes of two distinct layers (exocarp, the outer, and endocarp, the inner), or of three (epi-, meso-, and endo-carp); syn. *spermotheca*; cp. *endocarp, etc.*: adj. **pericarpic pericarpial.**

pericladium (Gr. *klados,* a branch), the the large sheathing petiole of Umbelliferæ; the sheathing base of a leaf or petiole when it surrounds the stem; see *amplexicaul, perfoliate.*

periclinium (Gr. *kliné,* a bed), the whorl of bracts around the receptacle in Compositæ; a form of involucre; syn. *periphoranthium.*

periderm (Gr. *derma,* skin), the outer layer of bark; syn. *epiphlœum.*

perienchyma (Gr. *engchuma,* tissue), irregular cellular tissue in glands or spherical masses.

perigone perigonium (Gr. *goneus,* a parent), see *perianth.*

perigynium (Gr. *gune,* a female), the membranous perianth of Cyperaceæ: **perigynous,** inserted around and away from the ovary, as stamens on petals adnate to a calyx which may be hypogynous or partially or wholly adnate to the ovary or produced beyond it; cp. *epigynous, hypogynous.*

perine (Gr. *peri,* around), the outermost layer of sculpturing upon the external coat of a pollen grain; see *exine.*

peripetalous (Gr. *petalon*, a petal), around the petals.

periphery (Gr. *phero*, I carry), circumference of a circle; the outer stratum of a cylinder or sphere; **peripheral**, relating to the periphery: **peripheric peripherical**, said of an embryo that follows the curve of the seed-coats, and is coiled round the outside of the albumen.

periphoranthium (Gr. *phorein*, I bear; *anthos*, a flower), the involucre of Compositæ; syn. *periclinium*; see *phyllaries*.

peripterous (Gr. *pteron*, a wing), surrounded by a wing.

perisperm (Gr. *sperma*, a seed), the exterior albumen of the seed, that produced in the nucellus outside the embryo-sac; syn. *prosembryo*; cp. *albumen, endosperm*: **perispermic**, relating to the perisperm.

perispheric (Gr. *sphaira*, a sphere), globular; syn. *spheric*.

peristomatic (Gr. *stoma*, a mouth), around the breathing-pores of leaves; see *stomate*.

peritropous (Gr. *trope*, a turning), said of a radicle that does not point towards the apex of the ovule nor towards the hilum but towards the side, as in amphitropous ovules; syn. *centrifugal, heterotropous, transverse, vague*; cp. *orthotropous, etc.*; also said of a seed that lies transversely in the pericarp.

perlate (It. *perla*), with pearly lustre; covered with rounded tubercles.

permeate (L. *per*, through; *meo*, I pass), to pass through the pores of another body: **permeable**, admitting the passage of light or of a liquid; cp. *impermeable*.

peronate (L. *peronatus*, booted; from *pero*, a boot of rough untanned hide), with a surface like untanned hide.

perpusillous, see *pusillous*.

persistent (L. *persistere*, to continue steadfastly), remaining attached to the support beyond the usual period; said of a calyx or corolla which are not cast off after the fecundation of the ovary but remain attached until the fruit is mature; syn. *restant*; cp. *caducous, deciduous, marcescent*.

personate (L. *persona*, a mask), said of a bilabiate corolla the throat of which is closed by a mask-like projection (palate) of the lower lip, as in Snapdragon; cp. *ringent, rictus*.

pertuse (L., *pertusus*, perforated), pierced with slits or holes; syn. *perforate*.

perula (L., a little pocket), the scales of a leaf-bud; the sac formed by the prolonged and united bases of two of the perianth-segments in some orchids; cp. *cataphylla, etc.*

Peruvian bark family, Rubiaceæ.

pervius (L. *per*, through; *via*, a way), admitting the passage of another body; having an open passage through; cp. *permeable, impervious*.

pes (L., a foot), affix, as *longipes*, long-stalked; see *pedicel*.

petal (Gr. *petalon*, a petal), one of the floral leaves of the corolla whether distinct from or united to each other; cp. *sepal, leaf, segment*: adj. **petaline**: **petalody** (Gr. *duo*, I put on), when other organs of the flower assume the appearance of petals; cp. *sepalody, staminody, pistillody, calycanthemy*: **petaloid** (Gr. *eidos*, likeness), resembling petals; coloured; cp. *herbaceous*.

petiole (L. *petiolus*, a little foot), the stalk of a leaf; cp. *peduncle, pedicel*; adj. **petioled petiolate**; cp. *sessile*: **petiolule**, the stalk of a leaflet: adj. **petioluled petiolulate**: **petiolar**, attached to or relating to a petiole.

petit grain (Fr.), the ethereal oil yielded by the leaves of the orange tree; cp. *neroli*.

petræous petrose (L. *petra*, a stone; *petrosus*, stony), growing on rocky or stony ground; syn. *lithophil*.

phænogamous (Gr. *phaino*, I show; *gamos*, marriage), see *phanerogamous*.

phalange (Gr. *phalanx*, a compact body of armed men), a single bundle or plate of tissue formed by the union of the filaments of stamens; see *monadelphous, etc.*; cp. *column, tube*.

phanerogamous (Gr. *phaneros*, manifest; *gamos*, marriage), having the the organs of reproduction, *viz.*, the stamens and pistil, apparent; cp. *cryptogamous*: **Phanerogamia**, flowering plants; one of the two grand divisions of the Vegetable Kingdom; cp. *Cryptogamia*.

phellogen (Gr. *phellos*, cork; *gennao*, I produce), cork-producing meristem.

phœnicine phœniceous (Gr. *phoinix*), reddish-purple; cp *magenta, mauve*.

phenology phænology (Gr. *phaino*, I show; *logos*, a discourse), the study of the relative times and seasons at which plants flower, seed, and perform other periodic functions.

phleboidal (Gr. *phleps*, gen. *phlebos*, a vein ; *eidos*, likeness), vein-like ; cp. *moniliform, varicose.*

phlœum (Gr. *phloios*, bark), cellular tissue below the epidermis ; the soft tissue of the inner bark (syn. *soft bast*) ; the soft outer portion of a vascular bundle ; see *epiphlœum, ochrophloia, etc.*

phoeniceous, see *pheniceous.*

phoranthium (Gr. *phorein*, I bear ; *anthos*, a flower), the receptacle of the flower-head in Compositæ ; syn. *clinanthium* ; cp. *anthodium.*

phragma pl. **phragmata** (Gr. a fence), a transverse partition of a cell, ovary or fruit ; cp. *diaphragm, septum, dissepiment* : **phragmigerous** (L. *gero*, I bear), bearing phragmata ; cp. *septate, septulate.*

phrygana (Gr. *Phrygia*, a district in Asia Minor), term for low spiny shrubs like broom, etc. : **phrygian**, composed of underwood consisting of phrygana.

phycocyanin (Gr. *phukos*, sea-weed ; *kuanos*, blue), the blue pigment of certain seaweeds : **phycoerythrin** (Gr. *eruthros*, red), the purple pigment of red sea-weeds : **phycophæin** (Gr. *phaios*, dusky), the brown pigment of brown algæ.

phyllaries (Gr. *phulon*, a leaf), the bracts or scales forming the involucre of a flower-head in Compositæ ; see *pericliniun* : **phylla**, leaves ; the leaves of the calyx (syn. *sepals*).

phyllo- (Gr. *phullon*, a leaf), prefix.

phyllocladium (Gr. *klados*, a branch), a general name for modified branches that resemble leaves in form and function ; syn. *cladodium* ; cp. *phyllodium.*

phyllodium (Gr. *duo*, I put on), a petiole or leaf-stalk having the form and function of a leaf, the blade being abortive ; cp. *phyllocladium* : **phyllodineous**, relating to a phyllodium : **phyllody** **phyllomorphy** (Gr. *morphe*, shape), metamorphosis of floral or other organs so that they assume the appearance of foliage-leaves ; cp. *petalody, antholysis.*

phyllogen (Gr. *gennao*, I produce), the budding summit of a stem ; a name for the terminal bud of Palms ; syn, *phyllophore.*

phylloma phyllome (Gr. foliage), an assemblage of leaves constituting foliage ; an outgrowth of the stem of the same mode of origin, position, or arrangement as that taken by a leaf ; cp. *prophylla, cataphylla, hypsophylla, etc.*

phyllomania (Gr. *mania*, madness), an abnormal development or production of leaves.

phyllomorphy, see *phyllody.*

phyllophore (Gr. *phoreo*, I bear), see *phyllogen.*

phylloptosis (Gr. *ptosis*, a falling), the fall of the leaf.

phyllotaxis phyllotaxy (Gr. *taxos*, an arrangement), the mode of arrangement of leaves on the stem.

phyllula (Gr. *phullon*, a leaf), the scar left on the stem by the fall of the leaf ; syn. *leaf-scar.*

phylogeny phylogenesis (Gr. *phule*, a tribe ; *gennao*, I produce), the history of the development of the race to which an individual plant belongs ; cp. *ontogeny.*

phylum pl. **phyla** (Gr. *phule*, a tribe), the chief divisions of the Vegetable Kingdom., Phanerogamia and Cryptogamia.

phymatodeous (Gr. *phuma*, a boil or tumour ; *eidos*, likeness), with tumour-like excrescences ; cp. *verrucose.*

physiological (Gr. *phusis*, nature ; *logos*, a discourse), relating to the science of the vital functions of plants and animals ; cp. *structural, systematic* : —**botany**, the physiology of plants ; syn. *phytonomia.*

phyto- (Gr. *phuton*, a plant), prefix.

phytochlor (Gr. *chloros*, green), the green colouring matter of plants ; syn. *chlorophyll.*

phytography (Gr. *grapho*, I write), that part of botany that deals with the description of plants, comprising *terminology* and *nomenclature.*

phytoid (Gr. *eidos*, likeness), plant-like.

phytoliths (Gr. *lithos*, stone), fossil plants.

phytology (Gr. *logos*, a discourse), the science of plants ; syn. *botany.*

phytomer pl. **phytomera** (Gr. *meros*, a part), a plant element or unit in Morphological Botany consisting of one internode and node of stem with its leaves and accessory parts ; cp. *individual.*

phytonomia (Gr. *nomos*, a law), the science of the vital functions of plants ; syn. *physiological botany.*

phytonomy (Gr. *onoma*, a name), study of the obvious parts or organs of plants ; syn. *organography* ; cp. *phytotomy.*

phytotomy (Gr. *tomē*, a cutting), study of the minute structure or composition of organs, a branch of phytonomy ; syn. *histology, vegetable anatomy.*

piceous (L. *piceus*, pitch-black ; from *pix*, pitch), pitch-black ; brownish black ; cp. *atrous.*

picric acid (Gr. *pikros*, bitter), a bitter vegetable acid ; cp. *citric, etc.*

pictus (L.), as if painted.

pileate (L. *pileus*, a close-fitting felt cap), having a cap, like the head or cap of a mushroom : n. **pileus** ; syn. *tabula* : dim. **pileolus** : **pilidium**, a cap-like covering : **pileiform** (L. *forma*, shape), cap-like ; cp. *operculate.*

pileorhiza (Gr. *pileos*, a cap ; *rhiza*, a root), a cap-like covering at the end of some roots, as in Lemna ; cp. *coleorhiza, spongiole, root-cap.*

pili (L. pl. of *pilus*, a hair), slender hairs ; cp. *setæ* : **piliform** (L. *forma*, shape); hair-like.; cp. *filiform* : **piliferous** (L. *fero*, I bear), bearing slender distinct hairs : **pilose**, thinly hairy with long, soft simple hairs ; see *hairy* : **pilosiusculous**, somewhat pilose.

pillar-shaped, *columnar.*

piluliferous (L. *pilula*, a small ball ; *fero*, I bear), bearing small glands ; cp. *glanduliferous.*

pinakenchyma pinenchyma (Gr. *pinax*, a table ; *engchuma*, tissue), tissue composed of short flat cells, as in the medullary rays of exogenous stems ; see *muriform, tabular.*

pine and fir family, Coniferæ.

pine-apple, fruit of the Ananas sativa ; see *sorosis.*

pink or **clovewort family**, Caryophylleæ.

pinna (L. a feather), the primary division of a compound leaf especially when itself divided into leaflets : **pinnate**, said of a compound leaf with leaflets or pinnæ arranged on either side of the rachis or main axis of the leaf : **pinnule pinnula**, the secondary division of a compound leaf especially when itself divided into leaflets ; see *bipinnate, tripinnate* : **pinnately**, in a pinnate manner ; cp. *palmately* : **pinnati-lobed, -fid, -partite, -sect**, said of a simple leaf with divisions more or less complete extending from margin to midrib ; pinnately lobed, cleft, parted, divided : **pinnately veined**, see *penni-veined.*

pinule, see *pinnule.*

pipe-shaped, *tubiform.*

pipewort family, Eriocauleæ.

pisiform (L. *pisum*, a pea ; *forma*, shape), pea-shaped.

pistil (L. *pistillum*, a pestle), the female organ of the flower consisting of ovary, style and stigma, or of ovary and stigma if the style be wanting : **pistillate**, having a pistil : —**flower**, one in which the stamens are wanting or abortive ; a female flower ; syn. *fecula* ; cp. *staminate flower* : **pistillode pistillodium** (Gr. *eidos*, likeness), the barren organ that represents the pistil in some staminate flowers ; cp. *staminodium* : **pistillody** (Gr. *duo*, I put on), the change by-development (metamorphosis) of other organs of the flower (usually the stamens) into pistils ; cp. *staminody, petalody.*

pitch-black, *piceous.*

pitcher, an excavated leaf ; syn. *ascidium, vasculum* : **pitcher-plant family**, Nepenthaceæ : **pitcher-shaped**, *ascidiform, vasculiform, urceolate.*

pith (AS. *pidha*), the central cylindrical portion of stems, chiefly exogenous ; this consists of cellular tissue active in young, absent or effete in old stems.

pitted, with numerous pits or small depressions ; cp. *excavate, etc.*

pittosporum family, Pittosporeæ.

placenta (L. a cake), that portion of the interior of the ovary on which the ovules are borne when sessile, or to which they are attached when stalked or funicled ; syn. *sporophore, trophosperm* : **placental**, relating to the placenta : **placentary**, bearing many ovules on one placenta : **placentation**, the arrangement of the placentas within the ovary ; see *axile, basal, free central, parietal* : **placentiform** (L. *forma*, shape), shaped like a flat cake.

plagi- (Gr. *plagios*, transverse), prefix.

plaited (L. *plico*, I fold), folded, usually lengthwise (syn. *plicate*) ; marked as by a folding or overlapping, as the corolla of Convolvulaceæ.

plane (L. *planus*, level), with a flat surface : **plano-**, in comp. flat : —**concave**, flat on one side, hollow on the other : —**conical**, flat on one side, conical on the other : —**convex**, flat on one side, rounded on the other : —**subulate**, smooth and awl-shaped.

plane family, Platanaceæ.

plant (L. *planta*, a green twig), any organised living body belonging to the Vegetable Kingdom.

platy- (Gr. *platus*, broad), prefix.

platyphyllous (Gr. *phullon*, a leaf), broad-leaved.

pleio- (Gr. *pleion*, more), prefix.

pleiochasium (Gr.), a cymose flower-cluster with three or more lateral axes ; a multiparous cyme ; cp. *dichasium*, *monochasium*.

pleiomorphy (Gr. *morphe*, shape), the growth of usually abortive parts of irregular flowers : n. **pleiomorphism**.

pleiophyllous (Gr. *phullon*, a leaf), many-leaved ; cp. *pleistophyllous*.

pleiotaxy (Gr. *taxos*, arrangement), the multiplication of whorls.

pleistophyllous (Gr. *pleistos*, very many), with very many leaves ; cp. *pleiophyllous*.

plenus (L. full), with an abnormal number of petals ; syn. *double*, as applied to flowers ; see *flos plenus*.

plerome (Gr. *pleroma*, fullness), central portion of the generative wood tissue ; cp. *periblem*, *meristem*.

pleurenchyma (Gr. *pleura*, a rib ; *engchuma*, tissue), woody tissue ; syn. *prosenchyma* ; cp. *parenchyma*.

pleuro- (Gr. *pleura*, a rib), prefix, ribbed.

pleurorhizal (Gr. *rhiza*, a root), a term applied to an embryo the cotyledons of which have their edges along the radicle ; cp. *notorhizal*.

plexiform (L. *plexus*, plaited ; *forma*, shape), like a network ; syn. *retiform* : **plexus**, a network ; syn. *rete*.

plexioblastus (Gr. *plexis*, a striking ; *blastos*, a shoot) cotyledons that rise above ground in germination but do not become leaf-like.

plica (L. *plico*, I fold), a diseased condition in which a bud instead of developing into a branch becomes an entangled mass of short twigs.

plicate (L. *plico*, I fold), folded usually lengthwise, like a closed fan, along several ribs, as in palmate leaves ; see *plaited* ; cp. *conduplicate*, *complicate* : n. **plication**.

plumbeous (L. *plumbum*, lead), lead-coloured ; dull-grey with a metallic lustre.

plume (L. *pluma*, a feather ; dim. *plumula*), a feather-like tuft of hairs : **plumate**, see *pinnate* : **plumose**, with branches disposed like the plume on the shaft of a feather ; said of bristles with fine hairs on either side ; cp. *aspergilliform* : **plumule**, the rudimentary bud of the embryo, between or above the cotyledons ; cp. *radicle*.

pluri- (L. *plus*, gen. *pluris*, more), prefix.

plurijugate (L. *jugum*, a yoke), with many pairs of leaflets or pinnæ ; cp. *unijugate*.

plurilocular (L. *loculus*, a little place), many-celled.

pluriseptate (L. *septum*, a partition), with many dissepiments.

poculiform (L. *poculum*, a goblet ; *forma*, shape), cup-shaped ; see *calathiform*, *etc.*

pod (Dan. *pude*, a pillow), the common name for a legume ; sometimes applied to any dry many-seeded fruit opening at maturity and formed either of one carpel, as a legume, silique or follicle, or of many, as a capsule.

podetium (Gr. *pous*, a foot), a stalk-like elevation, simple or branched : **podium**, see *receptacle*.

podo- (Gr. *pous*, a foot), stalked, prefix.

podocarpous (Gr. *karpos*, fruit), with the carpel or fruit of a single carpel stalked : **podocarp**, the stalk of a single carpel ; cp. *podogynium*.

podocephalous (Gr. *kephale*, the head), having a head of flowers stalked or pedunculate.

podogynium (Gr. *gunê*, a female), a stalk supporting the pistil above the stamens in certain flowers ; cp. *gynophore*, *podocarp*.

podosperm (Gr. *sperma*, seed), the thread or stalk sometimes connecting the ovule or seed with the placenta ; syn. *funicle*.

pogon (Gr. a beard), bearded, in comp. ; see *andropogon*, *leucopogon*, syn. *barbate* : **pogostemon** (Gr. *stemon*, the warp of a loom), with bearded stamens.

point (L. *punctum*, a small hole), a sharp end ; see *acumen* : **pointless**, *muticous* : **pointletted**, *apiculate*.

politus (L. polished), with a smooth and polished surface ; syn. *lævigate*.

pollard (Dut. *polle*, the head), to cut off the upper part of a tree stem to induce the formation of many branches ; cp. *lop*, *prune*.

pollen pollen-grains (L. *pollen*, pl. *pollinia*, fine flour), the powder-like granules contained in anther-cells: **pollen-cell**, the cell of the anther that contains the pollen; syn. *anther-sac*, *theca*: **pollen-mass**, an agglutinated mass of pollen grains, as in Asclepiadeæ and Orchideæ; syn. *pollinium*: **pollen-tube**, the thread-like process formed by the development of the inner coat of a pollen grain when that comes into contact with a mature stigma; see *intine*, *etc.*: **pollinar pollinose**, covered with fine pollen-like dust: **pollinated**, supplied with pollen; said of an ovary when penetrated by the pollen-tube but without production of seed; cp. *fecundated*: n. **pollination**: **pollinicous**, composed of or relating to pollen: **polliniferous** (L. *fero*, I bear), bearing pollen: **pollinium** pl. **pollinia**, see *pollen-mass*: **pollinodium** (Gr. *eidos*, likeness), that which answers to the anther in Cryptogamia; syn. *antheridium*.

pollicaris (L. *pollex*, the thumb), an inch long; about the length of the terminal joint of the thumb.

poly- (Gr. *polus*, many), prefix.

polyadelphous (Gr. *adelphos*, a brother), having the stamens united by the filaments into many bundles or phalanges, a term usually applied if there are more than two such bundles; cp. *mon-*, *di-*, *tri- adelphous*.

polyandrous (Gr. *aner*, a male), with twenty or more stamens inserted on the thalamus; hence **Polyandria**, a Linnæan order; cp. *Icosandria*, *polystemonous*.

polyanthous (Gr. *anthos*, a flower), with many flowers.

polycarpellary (Gr. *karpos*, fruit), having many distinct carpels in the flower; cp. *monocarpellary*, *polygynous*: **polycarpian polycarpic polycarpous**, fruiting many times, as perennials; syn. *polytocous*; cp. *monocarpic*.

polycephalous (Gr. *kephalé*, the head), bearing many heads of flowers (capitula or anthodia); cp. *monocephalous*.

polychotomous (Gr. *polycha*, in many parts; *tome*, a cutting), repeatedly branching into many usually equivalent portions; cp. *dichotomous*.

polycladous (Gr. *klados*, a branch), with many branches.

polycoccous (Gr. *kokkos*, a nutlet), with many dehiscent or indehiscent dry seed-like lobes in the fruit; see *cocci*, *pseudospermium*.

polycotyledonous (Gr. *kotuledon*, a cup-shaped cavity), with more than two seed-leaves or cotyledons, as in most Coniferæ; cp. *mono-*, *di- cotyledonous*.

polyembryony (Gr. *embruon*, an embryo), with more than one embryo in the ovule: adj. **polyembryonic**.

polygamous (Gr. *gamos*, marriage), with hermaphrodite and unisexual flowers borne by the same species on one or on different individuals; syn. *trigamous*; cp. *andro-*, *gyno-diœcious*: **polygamo-diœcious**, see *diœcio -polygamous*: **polygamo-monœcious**, see *monœcio-polygamous*.

polygynœcious (Gr. *gunḗ*, a female; *oikos*, a house), having *collective fruits*, q. v.

polygynous (Gr. *gune*, a female), with more than twelve styles, sessile stigmas or united carpels; cp. *dodecagynous*, *polycarpellary*.

polymerous (Gr. *meros*, a part), having many members; with many members in each whorl of the flower.

polymorphous (Gr. *morphe*, shape), having many forms of the same organ: n. **polymorphy**.

polypetalous (Gr. *petalon*, a petal), having distinct, *i.e.*, separate, petals; syn. *apo-*, *chori*, *dialy-*, *eleuthero-petalous*; cp. *gamopetalous*, *polyphyllous*.

polyphore (Gr. *phorein*, I bear), a torus or flower-receptacle bearing several pistils, like that of the strawberry.

polyphyllous (Gr. *phullon*, a leaf), many leaved; having distinct flower-leaves in the perianth; cp. *gamophyllous*, *polypetalous*.

polysepalous (Gr. *sepalon*, a sepal), with distinct, *i.e.* separate, sepals; cp. *gamosepalous*.

polyspermous (Gr. *sperma*, a seed), containing many seeds.

polystachyous (Gr. *stachus*, a row), with many spikes or long heads of sessile flowers.

polystemonous (Gr. *stemon*, the warp of a loom), with many stamens; syn. *indefinite*.

polystichous (Gr. *stichos*, a row), in many vertical rows; syn. *multifarious*.

polystylous (Gr. *stulos*, a column), with many styles.

polysymmetrical (Gr. *summetria*, an arrangement), divisible into similar halves in two or more planes; syn. *actinomorphous*; cp. *zygomorphous*.

polytocous (Gr. *tokos*, interest), fruiting many times, as in perennials; syn. *polycarpic*; cp. *monotocous*.

pome (L. *pomum*, fruit), a succulent inferior many-celled fruit, the seeds in dry cells with tough or hard lining; a drupe with cartilaginous endocarp, like the apple; syn. *pyridium*: **pomaceous**, relating to pomes: **pomiferous** (L. *fero*, I bear), bearing pomes: **pómiform** (L. *forma*, shape), apple-shaped: **pomology** (Gr. *logos*, a discourse), the study of edible fruits.

pomeridian. (L. *post*, after; *meridies*, midday), said of flowers which expand in the afternoon; cp. *matuline, etc.*

poppy or **poppywort family**, Papaveraceæ.

populifolious (L. *populus*, the poplar; *folium*, a leaf), with leaves like those of the poplar.

pore (Gr. *poros*, an opening), a small orifice: **porous porose**, full of minute holes; a term also applied to dehiscence by pores; cp. *ruptile*: dim. **porulose**; cp. *perforate, foraminous*: **pore-capsule**, a capsule that opens by pores or small valves, like that of the poppy.

porenchyma (Gr. *poros*, an opening; *engchuma*, an infusion), cellular tissue consisting of elongated porous cells.

porogamic (Gr. *poros*, an opening; *gamos*, marriage), a term for those plants in which the pollen-tube enters the ovule by the foramen; cp. *chalazogamic*.

porphyreous (Gr. *porphura*, purple), of a purple colour; syn. *purpureous*; cp. *puniceous*.

porrect (L. *porrectus*, extended; *porrigo*, I stretch out), extended as a tendril towards some likely support.

posterior (L.), behind; said of that portion of an axillary or lateral flower that faces towards the axis of inflorescence; syn. *superior, upper*; cp. *anterior*.

posticous (L. *posticus*, behind), said of an adnate anther turned away from the axis of inflorescence, and so facing the petals; syn. *extrorse*; cp. *anticous*.

potamo- (Gr. *potamos*, a river), used in comp. as Potamogeton (Gr. *geiton*, near), a genus of plants growing near or in water; cp. *fluvial, aquatic*.

pouch, a name for *silique*.

præ- (L. before), prefix.

præcox (L. *coquo*, to cook, ripen), flowering or fruiting at a period before that of allied species; cp. *precocious*.

præfloration (L. *floreo*, to bloom), see *æstivation*.

præfoliation (L. *folium*, a leaf), see *vernation*.

præmorse (L. *morsus*, bitten), terminating abruptly as if bitten off, a term applied to abrupt ends of roots or rhizomes, or to truncate leaves with jagged ends; cp. *succise*.

prænomen (L. *nomen*, a name), the first or "generic" name of a plant; cp. *cognomen*.

præustate (L. *uro*, I burn), brown at the tip as if burnt; cp. *deustate*.

prasinous (Gr. *prason*, a leek), leek-green; green with a tinge of grey.

pratensis (L. *pratum*, a meadow), growing in meadows; cp. *agrestis, etc.*

precocious (L. *præcox*, premature), appearing or developing early: —**flowers**, those that appear while the tree is still leafless; syn. *protanthous*; cp. *serotinous*.

premorse, see *præmorse*.

prickle (AS.), a sharp-pointed outgrowth of the epidermis; cp. *spine, trichome*: **prickly**, *aculeate*.

primary (L. *primus*, the first), chief: —**axis**, the main axis from which branches proceed: —**nerves**, the principal veins of a leaf that branch from the midrib; cp. *secondary*.

primine (L. *primus*, first), the outermost coat of an ovule developing into the testa of the seed; cp. *secundine, etc.*

primitive (L. *primitus*, first), first or earliest; a term applied to an original species from which hybrids have developed.

primordial (L. *primus*, first, *ordior*, I originate), the earliest formed (parts or organs): —**leaves**, those of the plumule, the first true leaves of the plant; cp. *seed-leaves*: —**utricle**, the first-formed membrane lining a vegetable cell and forming a bag in contact with the cell-wall.

primrose family, Primulaceæ.

prismatic (Gr. *prisma*, a prism), prism-shaped: —**colours**, those into which a ray of sunlight is divided on passing through a prism, *viz.*, violet, indigo, blue, green, yellow, orange, and red.

prismenchyma (Gr. *prisma*, a prism; *engchuma*, tissue), tissue composed of prismatic cells.

proboscideous (Gr. *proboskis*, a trunk), trunk-like; cp. *rostrate*.

procerous (L.), tall; syn. *elatus*; cp. *pumilus*.

process (L. *processus*, an advance; from *procedo*, I go forth), any projecting part or appendage; cp. *outgrowth*.

procumbent (L. *pro*, forward; *cumbens*, lying), lying for the whole or greater part of its length along or close to the ground; syn. *trailing*; cp. *decumbent*, *humifuse*, *prone*, *prostrate*, *reclinate*, *repent*, *supine*.

prodromus (L. a fore-runner), a compendious account of all plants, extending to species; cp. *flora*, *monograph*.

productum (L. *pro*, forth; *duco*, I lead), a spur, or spur-like process; see *spur*; syn. *calcar*: **produced**, extended or prolonged.

proembryo (Gr. *pro*, before; *embruon*, a fœtus), the chain of cells that forms in an ovule just after its impregnation by pollen, and connects the radicle end of the young embryo with the embryo-sac; syn. *suspensor*; cp. *perembryo*.

proeminent (L. *pro*, forward; *emineo*, I stand out), projecting beyond, as stamens beyond the tube of a corolla; syn. *exserted*; cp. *included*.

profuse (L. *pro*, forth; *fusus*, poured), abundant: —**head of cymes**, one abundantly flowered.

projectura (L. *projectio*, a stretching out), a small longitudinal ridge, on some stems, where the leaf originates.

prolepsis (Gr. a seizing before another), anticipation; a term for a theory regarding the formation of flower-leaves and bracts: **proleptic**, anticipatory.

proles (L., offspring), a variety of a high order capable of being reproduced by seed; syn. *race*, *sub-species*: **proliferous** (L. *fero*, I bear), bearing offspring by offshoots or by the development of adventitious buds; cp. *viviparous*, *gemmiparous*: —**branching**, that resulting from the development of adventitious buds on the stem: **prolification** (L. *facio*, I make), the production of buds or young plants abnormally, as on leaves.

prominent (L. *pro*, forward; *mineo*, I project), raised above the surface; syn. *elevated*.

prone (L. *pronus*, stooping forward), lying flat upon the ground, or upon a support, face downward; cp. *supine*.

propaculum propagulum (L. *propago*, a sucker), any shoot, layer, sucker or bud serving for propagation: **propagines**, *bulblets*; cp. *runner*, *etc.*

proper (L. *proprius*, exclusive), true, as opposed to *pseudo*, *spurious*: —**dissepiment**, that formed by the contiguous walls of cells or carpels: —**juice**, the descending elaborated sap of plants.

prophylla (Gr. *pro*, before; *phullon*, a leaf), the first leaves of a branch or plant-axis; cp. *hypsophylla*.

proscolla (Gr. *pro*, before; *kolle*, glue), a viscous gland on the rostellum of an orchid.

prosembryo (Gr. *pros*, near; *embruon*, a fœtus), the outer albumen of the seed; syn. *perisperm*; cp. *endosperm*.

prosenchyma (Gr. *pros*, near; *engchuma*, tissue), woody tissue consisting of long, narrow, usually thick-walled and overlapping spindle-shaped cells; syn. *pleurenchyma*, *angienchyma*; cp. *parenchyma*.

prostrate (L. *pro*, before; *sterno*, I spread out), lying flat along the ground; cp. *procumbent*, *prone*.

prot-, *proter-*, *proto-* (Gr. *protos*, *proteros*, first), prefix.

protandrous proterandrous (Gr. *aner*, a male), said of a flower when the stamens mature before the stigma; cp. *protogynous*: n. **protandry**.

protanthous proteranthous (Gr. *anthos*, a flower), flowering before the foliage-leaves appear; syn. *precocious*.

protean (L. *Proteus*, a god of the sea capable of assuming different shapes), presenting great diversity of appearance.

proteid proteine (Gr. *protos*, first-formed), a nitrogenous substance forming the basis of albumen, caseine and fibrine, usually viscid, sometimes crystallisable; see *colloid*, *crystalloid*: adj. **proteinous**.

protenchyma (Gr. *engchuma*, an infusion), the first-formed tissue of plants giving rise to other tissues.

protogynous (Gr *gune*, a female), said of a flower when the stigma matures before the stamens; cp. *protandrous*: n. **protogyny**.

protoplasm (Gr. *protos*, first; *plasma*, something formed), the living organic

matter, colourless, transparent and somewhat viscid, that lines the inner wall of cells; this forms the elementary basis from which all organised tissue develops, and is chemically a compound of oxygen, hydrogen, nitrogen and carbon, with some sulphur: syn. *cyto-blastema*: **protoplast** (Gr. *plastos*, formed), the first-formed nucleated cell of an organised body; see *cytoplasm*.

proximate (L. *proximus*, next), very near to; adjoining; cp. *remote*: —**principles**, those compounds that are produced in living vegetable tissues, as sugar, starch, etc.

pruinate pruinose (L. *pruina*, hoar frost), covered with a glittering hoar-frost-like bloom or powder; cp. *canescent, crustose, farinose, pulvereous, roridous*.

prune (L. *prunum*, a plum), the dried fruit of the plum tree (Prunus domestica).

prune (AS.), to trim the branches of a shrub so as to entirely remove sound or effete branches, or to leave a portion in order to increase the number of branchlets; cp. *lop, pollard*.

prurient (L. *pruriens*, itching), producing an irritable itching sensation when touched.

pseud-, pseudo- (Gr. *pseudes*, false), prefix; see *proper, quasi, spurious*.

pseudaxis, see *sympode*.

pseudo-bulb (L. *bulbus*, a globular root), the thickened internodes of some orchids; a term for *corm*; syn. *knob*.

pseudo-carp (Gr. *karpos*, fruit), see *anthocarp, accessory fruit*.

pseudo-costate (L. *costa*, a rib), false-ribbed; with intramarginal veins.

pseudo-hermaphrodite, said of flowers ordinarily hermaphrodite that have become functionally unisexual by the suppression of either stamens or pistil.

pseudomorph (Gr. *morphé*, shape), an unusual or altered form.

pseudospermium (Gr. *sperma*, a seed), a dry, indehiscent, one-celled, one-seeded fruit resembling a seed; syn. *achene, amphispermium*.

psilostachyous (Gr. *psilos*, smooth; *stachus*, a spike), having naked spikes, *i.e.*, long axes of sessile flowers without bracteoles.

pter-, ptero- (Gr. *pteron*, a wing) prefix.

pteridium pterodium (Gr. *duo*, I put on), a winged seed or fruit; syn. *samara*.

pterigospermous (Gr. *'pterux*, a wing; *sperma*, a seed), with winged seed: **pterigoid** (Gr. *eidos*, likeness), wing-like.

pterocarpous (Gr. *karpos*, fruit), with winged fruit; see *dipterocarpous*.

pteropodous (Gr. *pous*, a foot), with the petiole or stalk margined by thin wing-like appendages.

ptychode (Gr. *ptuche*, a fold), a name for protoplasm: **ptyxis**, a general name for the folding of single parts, as of a leaf or flower in the bud; cp. *plication*.

puberty (L. *pubertas*, age of maturity), the period when a plant first produces flowers and fruit: **pubes**, hairiness; syn. *pubescence*.

puberulous (L. *pubes*, gen. *puberis*, of ripe age), with very short soft hair or down; minutely pubescent: n. **puberulence**; cp. *pubescence*.

pubescent (L. *pubes*, the first hair on the chin, a sign of puberty), with somewhat short soft straight, *i.e.*, not entangled, hairs or down; cp. *tomentose, puberulous, velutinous*; see *hairy*: n. **pubescence**; cp. *puberulence*.

puckered, see *rugose*.

pugioniform (L. *pugio*, a dagger; *forma*, shape), dagger-shaped.

pulcher pulchellus (L.), beautiful: **pulcherrimus**, most beautiful.

pullous (L. *pullus*), blackish; greyish black; dark green or dark coloured; cp. *atrous, coracine, piceous*.

pullulate (L. *pullulo*, I sprout), to give forth shoots.

pully-shaped, *trochlear*.

pulpose pulpy (L. *pulpa*, flesh), soft and juicy; syn. *succulent*; cp. *fleshy*: n. **pulp**.

pulse family, Leguminosæ.

pulveraceous pulvereous pulverulent (L. *pulvis*, gen. *pulveris*, dust), covered as by a minute powder; cp. *pruinose, etc.*

pulvinate pulvinous pulviniform (L. *pulvinus*, a cushion; *forma*, shape), cushion-shaped: **pulvinus**, the swelling of a stem under the insertion of a leaf; the swollen base of primary or secondary petioles; cp. *struma*.

pumilus (L.), low in stature; syn. *nanus, pygmæus*; cp. *procerus*.

punctate (L. *punctum*, a point), dotted with small punctures or glands; cp.

excavate, etc.: **puncticulate puncticulose,** minutely punctate: **punctiform** (L. *forma*, shape), like a small dot or pointed projection, as some stigmas on the apex of the style; cp. *capitate*.

puniceous (L. *puniceus*), scarlet or carmine; cp. *porphyreous, cinnabarine*.

purgative (L. *purgo*, I purge), a medicine for clearing the bowels; syn. *aperient, laxative*.

purpurate purpureous (L. *purpura*), purple, syn. *porphyreous*: **purpurascent,** purplish.

purslane family, Portulaceæ.

pusillous (L. *pusillus*, puny), very small weak and slender; syn. *perpusillous*.

pustulate pustular pustulose (L. *pustula*, a pimple), with small blister-like elevations; cp. *bullate, papillar*.

putamen (L. a shell), the shell of a nut; the hard bony or crustaceous inner layer (endocarp) of a drupe: **putaminaceous,** with bony endocarp; cp. *lapideous*.

pycno- (Gr. *puknos*, thick), prefix.

pycnocephalous (Gr. *kephale*, the head), with a dense head of flowers.

pycnostachys (Gr. *stachus*, a spike), a spike with densely clustered flowers.

pygmæus (L. dwarf), low in stature; syn. *humilis, nanus, pumilus*.

pyracanthous (Gr. *pur*, fire; *akantha* a spine), with yellow spines.

pyramidal (Gr. *puramis*), pyramid-shaped; with base square, and sides plane triangles meeting at apex.

pyrene (Gr. *puren*, a kernel), one of the small stones of a drupaceous fruit, as in medlar; a bony one or more seeded carpel of a syncarpous fruit with fleshy pericarp; syn. *ossiculus*; cp. *nutlet, coccus, achene*: **pyrenarium,** a syncarpous drupe with pyrenes; cp. *drupe*: **pyrenocarp** (Gr. *karpos*, fruit), a stone fruit; see *drupe, pome*: **pyridium** (Gr. *eidos*, likeness), a *pome*.

pyriform (L. *pyrum*, a pear; *forma* shape), pear-shaped; syn. *dacryoid*; cp. *lachrymæform*.

pyxidate (Gr. *puxis*, a box), provided with a lid; syn. *operculate*: **pyxidium pyxis,** a capsule opening transversely, the upper part forming the *lid*, the lower the *amphora*.

Q

buadr-, quadri- (L. *quattuor*, four), prefix.

quadrangular (L. *angulus*, an angle), four-cornered.

quadrate quadrous (L. *quadrus*, a square), square if flat, and square in cross-section if solid.

quadricruris (L. *crus*, a leg), on four supports.

quadridigitate (L. *digitus*, a finger), digitate with four parts or divisions; cp. *quadrifoliate, quinate*.

quadrifarious (L. *quadrifarius*, fourfold), in four vertical rows; syn. *tetrastichous*.

quadrifid (L. *findo*, I cleave), cleft into four narrow segments half-way down the middle or more.

quadrifoliate (L. *folium*, a leaf), with four leaves diverging from the same point; cp. *quadridigitate*.

quadrifurcate (L. *furca*, a two-pronged fork), four-pronged; cp. *bifurcate*.

quadrigeminate (L. *gemini*, twins), with four similar parts.

quadrijugate (L. *jugum*, a yoke), in four pairs.

quadrilobate (Gr. *lobos*, the lobe of the ear), with four lobes or rounded parts, the sinuses extending to half-way down, or less.

quadrilocular (L. *loculus*, a little place), divided into four cells or locelli.

quadripartite (L. *partitus*, divided), four-parted; with four divisions extending almost to the base or midrib.

quadrisect (L. *sectus*, cut), divided into four parts, the divisions extending to the base or midrib; cp. *quadripartite*.

quadruplicate (L. *plico*, I fold), fourfold.

quaquaversal (L. *quaqua*, on all sides; *versus*, turned), inclined in every direction.

quartine (L. *quartus*, the fourth), the fourth, innermost, coat of the ovule, often converted into albumen; cp. *primine, etc.*

quasi (L. as it were), almost; almost of the same kind as; cp. *pseudo*.

quassia family, Simarubeæ.

quaternate quaternary (L. *quaterni*, four each), with the parts of the flower-whorls in fours: cp. *tetramerous*.

quin- (L. *quinque*, five), prefix.

quinate quinary, with the parts of the flower-whorls in fives; a term applied to

the plan of such a flower; cp. *pentamerous*: **quinate leaf,** one with five divisions arranged in a palmate manner: **quinate-pinnate,** said of a compound leaf with five leaflets, the two pairs close to each other and to the terminal leaflet, the whole resembling a quinate leaf.

quincunx (L. in the form of 5 spots on a dice), a whorl of five leaves arranged so that two are wholly within, two wholly without, and one partly within and partly without the coil: **quincuncial,** arranged in a quincunx (see *imbricate*; cp. *cochlear, convolute*); in five vertical rows (syn. *pentastichous, quinquefarious*); a gardeners' term for a style of planting (in quincunces) whereby the greatest number of plants can be put into a given space and be at the same time the utmost possible distance apart from each other.

quini (L.), in fives.

quinquefarious (L. *quinquefarius*, five fold), in five vertical ranks; syn. *pentastichous*; cp. *quincuncial.*

quinquefoliate (L. *quinque*, five; *folium*, a leaf), with five leaves diverging from the same point; cp. *quinate-pinnate*: **quinquefoliolate** (L. *foliolum*, a leaflet), with five leaflets.

quinquenervate 5-nerved (L. *quinque*, five; *nervus*, a nerve), having five strong ribs or nerves proceeding from the base of the leaf; cp. *quintuplinerved.*

quintine (L. *quintus*, the fifth), the embryo-sac forming what is sometimes considered the fifth and innermost coat of the ovule; cp. *quartine.*

quintuple quintuplicate (L. *quintuplex*), five-fold: **quintupli-nerved** or **-veined,** with two strong ribs or nerves proceeding from either side the midrib just above the base of the leaf, making five ribs in all; cp. *quinquenerved.*

R

race (Ger. *reiz*, a line), a permanent variety or one capable of being reproduced by seed, but without sufficiently marked character to be ranked as a separate species; syn. *proles, stirps, stock, subspecies*; see *variety.*

raceme (L. *racemus*, a cluster of grapes), a form of inflorescence in which the flowering axis is long and undivided, and the flowers arranged on either side are on equal or nearly equal stalks or pedicels; cp. *spike, corymb, umbel, capitulum*: **racemiferous** (L. *fero*, I bear), bearing racemes: **racemiform** (L. *forma*, shape), in the form of a raceme: **racemose,** in racemes; having the character of racemes; see *botryose.*

rachis (Gr. *rhachis*, backbone), the prolongation of the petiole in a pinnate leaf forming the principal axis from which the leaflets are given off; the prolongation of the peduncle in an elongated flower-cluster forming the principal axis from which the flowers or secondary peduncles are given off; cp. *receptacle*: **rachillus rachillum,** the secondary rachis of a compound spike; the rachis of a spikelet.

radial (L. *radius*, the spoke of a wheel), relating to the circumference of a flower-head in Compositæ: **radiant radiate,** arranged like rays around a common centre; bearing flowers that present a ray-like appearance: **radiately-veined,** with the nerves or veins of a leaf proceeding from a common centre; syn. *palmately veined*: **radiatiform** (L. *forma*, shape), said of the ray-flowers of a flower-head in Compositæ when enlarged and ray-like but not strap-shaped.

radical (L. *radix*, a root), relating to or springing from the root, or root-like portion of the stem below the ground: **—leaves,** those that proceed from the base of the stem or an underground root-like portion of it: **—peduncle,** see *scape*: **radicant,** rooting; bearing rootlets; climbing by means of suckers or aerial rootlets: **radicel radicule,** a rootlet: **radices** (L.), roots: **—adligantes** (L.), clinging roots: **—fulcrantes** (L.), stilt-like roots: **radiciflorous** (L. *flos*, a flower), flowering apparently from the root; cp. *ramiflorous*: **radiciform radicine** (L. *forma*, shape), of the form or nature of a root, syn. *rhizomorphous*: **radicle,** the axis of the embryo below the cotyledons; syn. *caulicle, hypocotyl*; cp. *plumule*; see *rostellum, tigelle*: **radiculose,** bearing rootlets.

radius (L. a spoke), see *ray.*

ramal (L. *ramus*, a branch), springing from the branch, not *axillary*: **rameal rameous** (L. *rameus*), pertaining to a branch: **rameaneous,** *cirrhose,* with tendrils formed by modified branches: **rameareous,** said of adventitious roots which proceed from branches: **ramify** (L. *facio*, I make), to branch: **ramification,** branching: **ramiflorous** (L. *flos*, a flower), flowering on the branches; cp. *radiciflorous*: **ramose ramous,**

much branched : **ramulose**, with many branchlets.

ramenta (L. pl. of *ramentum*, a shaving), chaffy scales on the epidermis of some plants : adj. **ramentaceous.**

rank (F. *rang*, order), a row ; see *biseriate, distichous, etc.*

rank (L. *ranceo*, to be putrid), emitting a heavy unpleasant odour ; syn. *fœtid* ; cp. *graveolens.*

rapaceous (L. *rapum*, a turnip), turnip-shaped ; syn. *napiform* ; cp. *fusiform.*

raphe (Gr. *rhaphé*, a seam), the cord or ridge of fibrous tissue which in an anatropous ovule connects the hilum with the chalaza ; see *vasiduct.*

raphides (Gr. *rhaphis*, a needle), needle-shaped crystals found in some plant cells : adj. **raphidian.**

rare (L. *rarus*, loose), thinly set ; fewer in number than in the case of allied species ; cp. *remote.*

ray (L. *radius*, the spoke of a wheel), one of the pedicels of an umbel (syn. *radius*); marginal as opposed to central in a capitulum umbel or cluster, and usually differing in structure by being larger : **ray-flowers**, those borne on the margin of a circular flower-cluster, when differing in size or structure from those within : **ray-florets**, the flowers borne on the rim or circumference of the capitulum of Compositæ, and usually larger and differing in structure from those of the disc ; cp. *disc-florets.*

recaulescence (L. *re*, back ; *caulis*, a stem), the union (adnation) of bracts or leaves to stems or peduncles ; cp. *concaulescence.*

receptacle (L. *receptaculum*, a storehouse), that part of an axis that forms a common support for a cluster of organs : **—of the flower**, the axile portion of a blossom forming the support of the sepals, petals, stamens, and pistil ; syn. *torus, thalamus, podium* ; cp. *disc* : **— of inflorescence**, the short axis bearing a cluster of flowers ; syn. *capitulum, hypanthodium* ; cp. *rachis.*

recess (L. *recessus*, a going back), the incision of the margin in a lobed leaf ; the re-entering angle ; syn. *sinus* ; cp. *salient* : **recessed**, with recesses.

reclinate reclined reclining (L. *re*, back ; *clino*, I bend), pressed down upon its support : **—stems**, those that are erect at base and with the upper portion trailing on the ground ; cp. *assurgent, procumbent* : **—leaves**, those with the upper part bent upon the lower, or the blade upon the petiole ; syn. *inflexed* ; cp. *declinate, incurved, etc.*

recondite (L. *reconditus*), hidden.

recrudescence (L. *re*, again ; *crudesco*, to become hard), the reproduction of a new shoot from a ripened axis.

recti- (L. *rectus*, straight), prefix.

rectiflorous (L. *flos*, a flower), with the axis of the florets in a flower-head of Compositæ parallel to the axis of inflorescence.

rectinerved rectinervate (L. *nervus*, a nerve), with the nerves or veins of a leaf running nearly parallel from base to apex ; syn. *rectiveined, parallel-veined* ; cp. *reticulate.*

rectiserial (L. *series* a row), arranged in regular lines or rows, as leaves on a stem ; cp. *curviserial.*

rectiveined rectivenous (L. *vena*, a vein), see *rectinerved.*

recurved (L. *re*, back ; *curvus*, bent), bent backward or downward ; syn. *retrocurved* ; cp. *declinate, reclinate, reflexed, deflexed.*

recutite (L. *recutitus*, smooth shorn), as if divested of epidermis.

reduced (L. *reduco*, I lead back), diminished in size, lessened in number or altered in shape, as petals to scales ; cp. *abbreviated, abortive, degenerate.*

reduplicate (L. *re*, back ; *duplico*, I double), folded backward or outward ; said of leaves with their margins folded backward ; cp. *revolute.*

re-entering, pointing or projected inward, as the angle of a recess ; cp. *salient* ; see *recess.*

reflexed (L. *re*, back ; *flecto*, bend), bent abruptly backward or downward ; syn. *retroflexed* ; cp. *recurved, deflexed.*

refracted (L. *re*, back ; *fractum*, broken), bent abruptly back from the base.

regma (Gr. *rhegma*, a rupture), name of a dry dehiscent fruit with from two to many lobed cells (cocci) separating elastically at maturity into as many 2-valved carpels, as in Euphorbia : **regmacarp** (Gr. *karpos*, fruit), general name for a dry dehiscent fruit ; syn. *pod* ; cp. *sarcocarp, achænocarp, pyrenocarp.*

regression (L. *re*, back ; *gradior*, to step), the change in character of a floral organ to that of the immediately preceding organ ; syn. *retrogression* ; cp. *reversion.*

regular (L. *regula*, a rule), uniform in shape: —**dehiscence**, see under *dehiscence*: —**flower**, ordinarily one with the petals or corolla-segments alike in size and shape, strictly one with the members of each circle or whorl alike in shape and size: —**muliplication**, see under *multiplication*.

reliquiæ (L. remains), persistent withered parts; syn. *induviæ*; see *marcescent*.

remote (L. *remotus*, afar off), scattered or thinly set (syn. *rare*); separated from others (syn. *distinct*); cp. *proximate*.

reniform (L. *renes*, the kidneys; *forma*, shape), kidney-shaped; cp. *hippocrepiform*.

repand (L. *re*, back; *pandus*, curved), with a wavy margin; syn. *sinuous*, *undulate*; cp. *sinuate*: — **crenate**, repand with rounded teeth at margin.

repent (L. *repo*, I creep), said of stems or branches that grow along or somewhat under the ground and root as they grow; syn. *creeping*, *reptant*; cp. *rhizome*.

replicate (L. *re*, back; *plico*, I fold), folded backward; cp. *implicate*, *complicate*.

replum (L. a door-leaf or case), the persistent portion of some pericarps after the fall of the valves, as in Mimosa; a central frame-like placenta with or without a false partition, as in the siliques of Cruciferæ.

reproductive organs (L. *re*, again; *produco*, I extend), all the parts of the flower, and especially the stamens and pistil; cp. *nutritive organs*; see *genitalia*.

reserve buds, see *dormant buds*.

resilient (L. *resilio*, I leap back), springing back, as some fruit stalks, stamens, etc.; see *catapult fruits*; cp. *dissilient*.

resin (L. *resina*), a gum-like substance, usually amber or yellow and somewhat transparent, that exudes from certain trees, as in many Coniferæ: —**duct**, an intercellular passage in which resin is stored: **resiniferous** (L. *fero*, I bear), yielding resin: **resinous**, containing or having the property of resin: **resin dammer**, a pitch-like resin obtained from Shorea robusta.

respiration (L. *respiro*, I breathe), the absorption by certain parts of plants, as green leaves in darkness, of free oxygen and the giving off of carbonic acid gas; cp. *assimilation*.

resplendent, see *splendent*.

restant (L. *resto*, I remain), *persistent*: **restibilis**, *perennial*.

restiform (L. *restis*, a rope; dim. *resticula*; *forma*, shape), rope-like: **resticula**, a fine cord-like process; cp. *funicule*.

resupinate (L. *re*, again; *supino*, I bend backward), turned or twisted so that parts normally in one direction are eventually turned in the opposite direction; cp. *inverted*: n. **resupination**; cp. *torsion*.

rete reticulation (L. *rete*, a net; dim. *reticulus*), net-work; syn. *plexus*: **retecious**, like net-work: **reticle**, a small net: **retiform** (L. *forma*, shape), net-like; cp. *arenose*, *etc.*: **reticulate reticulate-veined**, having distinct veins in the leaf forming a net-work; cp. *parallel-veined*: adj. **reticulated**; syn. *retiform*: **reticulum**, the collection of crossed fibres at the base of the petiole in palms; syn. *mattulla*: **retinerved**, *net-veined*; syn. *reticulate*.

retinaculum (L., a holdfast), the persistent hooked funiculus in most Acanthaceæ; the viscid gland to which pollinia are attached in Asclepiadeæ and Orchideæ; see *synstigmaticous*.

retinerved, see under *rete*.

retracted (L. *re*, back; *tractus*, drawn), said of the radicle when concealed by the prolongation of the bases of the cotyledons.

retro- (L. back), prefix.

retrocurved, see *recurved*.

retrofixed (L. *fixus*, fastened), attached by some part of the back, as some anthers to the top of the filament; cp. *adnate*, *basifixed*, *etc.*

retroflexed, see *reflexed*.

retrogression, see *regression*.

retrorse (L. *retro*, back; *versus*, turned), turned or directed backward or downward; cp. *introrse*, *extrorse*.

retroverted, see *inverted*.

retuse (L. *retusus*, blunt), with a small shallow notch in a rounded apex; cp. *narrowly retuse*, *emarginate*, *ob-cordate*.

reversion (L. *re*, back; *verto*, I turn), a change from a higher to a lower condition; a change, usually abrupt, to an ancestral form; cp. *regression*.

revoluble revolute revolutive (L. *re*, back; *volvo*, I roll) having the margins or apex of the leaf rolled backward upon the undersurface; cp. *involute*, *replicate*: **revolver flower**, one with the inner face of the corolla forming a number

of tubes, the anthers facing the mouths of the tubes, as in some Bindweeds, Gentians, etc., a device to secure inter-crossing.

rhachis, see *rachis*.

rhaphe, see *raphe*.

rhaphides, see *raphides*.

rhegma, see *regma*.

rhipidium (Gr. *rhipis*, a fan), a cymose form of inflorescence in which the lateral axes are in the same plane as the main axis, and spring successively from the back of the supporting axis; a uniparous fan-shaped cyme; cp. *drepanium*, *anthela*; see *monochasium*.

rhiz-, ***rhizo-*** (Gr. *rhiza*, a root), prefix.

rhizanthous (Gr. *anthos*, a flower), flowering from, or apparently from, the root: syn. *radiciflorous*: **rhizanth**, producing root and flower only; said of plants parasitic on the roots of other plants and producing only flowers, as in Balanophoreæ; syn. *rhizogen*; see *rhizophilous*.

rhizmose (Gr. *rhiza*, a root), having root-like hairs or filaments.

rhizoblast (Gr. *blastos*, formed), an embryo with an incipient root.

rhizocarpous (Gr. *karpos*, fruit), an herbaceous perennial, *i.e.*, one with persistent roots and annual stems.

rhizogenous (Gr. *gennao*, I produce) parasitic on the roots of other plants: n. **rhizogen**, syn. *rhizanth*.

rhizoid (Gr. *eidos*, likeness), root-like.

rhizome pl. **rhizomes rhizomata** (Gr. *rhizoma*, a root), a root-like stem growing on or underground and giving off, usually at the nodes, rootlets, and at apex or nodes leaves, a flowering stem (scape), or an erect leafy stem (culm); a root-stock; cp. *stock*, *soboles*, *tuber*, *corm*, *bulb*, *offset*: **rhizomatous**, relating to or producing rhizomes.

rhizomorphous (Gr. *morphé*, shape), root-like; syn. *radiciform*.

rhizophilous (Gr. *philos*, loved), growing attached to or parasitic on roots; see *rhizanth*.

rhodoleucous (Gr. *rhodon*, a rose; *leukos*, white), of a pale rose tint; cp. *roseous*.

rhombic (Gr. *rhombus*, a magic wheel), with four equal sides, the lateral angles obtuse: **rhomboid rhomboidal** (Gr. *eidos*, likeness), rhomb-like in outline.

rhynchospermous (Gr. *rhungchos*, a snout or beak; *sperma*, seed), with beaked seed.

rib, one of the primary veins of a leaf, usually strongly marked; syn. *costa*; cp. *midrib*, *nerve*: **ribbed**, with prominent veins; syn. *costate*; cp. *vein*: **ribwort family**, Plantagineæ.

ribbon-like, *tænioid*.

rictus (L., an open mouth; from *ringor*, I gape), the narrow slit between the upper and lower lips of a bilabiate corolla that is neither freely open nor quite closed; cp. *ringent*, *personate*.

ridged, *lirellate*.

rigescent (L. *rigesco*, to become stiff), stiff; becoming stiff: **rigid**, stiff, not flexible; cp. *strict*, *flaccid*: **rigidulous**, somewhat stiff.

rimate rimose (L. *rima*, a chink or fissure), with chinks or cracks mostly parallel, like old bark: **rimulose**, full of small cracks; cp. *scrobiculate*: **rimiform** (L. *forma*, shape), like a cleft or fissure.

ring, *annulus*; see *annual ring*.

ringent (L. *ringor*, I gape), said of a corolla the mouth or throat of which is widely open; syn. *hians*; cp. *personate*, *rictus*.

ringing, cutting a deep notch through bark and sapwood all round the stem of a tree.

ring shake, a crack or flaw concentric to the axis of a stem.

riparian (L. *ripa*, a river-bank), growing on river banks; cp. *littoral*, *maritime*, *rivalis*.

ripidium, see *rhipidium*.

rivalis (L. *rivus*, a stream), growing beside streams; cp. *riparian*: **rivularis**, growing in rivulets.

robust (L. *robus*, strength), hardy.

root (AS. *wrotan*), the descending axis of a plant, one of the organs of nutrition, usually subterranean, colourless, irregularly branched and without nodes or internodes; see *tap-root*, *adventitious root*; cp. *stem*, *rhizome*: **rootlet**, a fine slender root or branch of a root: **root-cap**, the cap-like covering of old and partly effete cellular tissue protecting the stratum of active cells (growing point) at the tip of the root; cp. *pileorhiza*: **root-hairs**, hair-like outgrowths from the newly-formed parts of a root: **root-**

sheath, *coleorhiza*: **root-stock,** *rhizome.*

rope-like, *restiform.*

roridous roscidous (L. *ros*, gen. *roris*, dew), covered as with dew; cp. *pruinose.*

rosaceous (L. *rosa*, dim. *rosula*, a rose), with five petals arranged like those of a single rose; pertaining to the rose family (Rosaceæ); **roseous,** rose-coloured, pale red; cp. *rhodoleucous*: **rosette,** a whorl or whorls of close-set incurved leaves like rose petals: **rosetum,** a garden set apart for the cultivation of roses: **rosulate rosular,** collected in a rosette; said of leaves when radical and arranged in a circle on or close to the ground.

rostellum (L. dim. of *rostrum*, a beak), a small beak; a term for the radicle; the process in orchid flowers which bears the glands of the pollinia and separates the stigma from the anther: **rostellate,** furnished with a little beak: **rostrum,** a beak or spur; a narrow elongated process; cp. *calcar*: **rostrate,** beaked; cp. *coracoid, calcarate, proboscideous.*

rosulate, see under *rosaceous.*

rotate (L. *rota*, a wheel), wheel-shaped; said of a regular gamopetalous corolla with short tube and flat spreading limb; cp. *hypocrateriform*: dim. **rotulate**: **rotate-plane,** flat wheel-shaped without the tube: **rotiferous** (L. *fero*, I bear), bearing wheel-shaped bodies: **rotation,** the circulation of sap within a living vegetable cell; cp. *osmose.*

rotund (L. *rotundus*, round), circular, or nearly so, in outline; syn. *orbicular.*

rough, *asperate, erinous, scabrous, strigose, trachy-, etc.*

rounded, blunt or very obtuse, as the base of some leaves.

rubefacient (L. *ruber*, red; *facio*, I make), an irritant used as an external application to allay inflammation.

ruber (L.), red: **rubellous rubens rubidous,** reddish: **rubescent,** reddish; turning red; cp. *rufescent, rutilans*: **rubicund,** rosy-red; cp. *rubiginose, sanguine.*

rubicolous (L. *ruber*, a bramble-bush; *colo*, I cultivate), growing as a parasite on a rubus or bramble.

rubigineous rubiginose (L. *rubigo*, rust), rust-red; dull reddish brown; syn. *ferrugineous*; cp. *rufous, rubicund, flammeous.*

ruderal (L. *rudus*, broken stone), growing among rubbish.

rudimentary (L. *rudimentum*, a first attempt; from *rudis*, raw), imperfectly developed (syn. *abortive, obsolete*); in an early stage of development (syn. *blastemal*); cp. *nascent*: **rudiment,** an abortive organ; syn. *vestige.*

rue and orange family, Rutaceæ.

rufous (L. *rufus*, red), reddish brown: **rufescent,** becoming reddish brown; cp. *cerase.*

rugose (L. *ruga*, a wrinkle), full of wrinkles, puckered; cp. *plaited, lirellate, sulcate*: dim. **rugulose.**

ruminate ruminated (L. *rumino*, to chew the cud; from *rumen*, the gullet), marked by transverse lines or divisions, or mottled, as the albumen of the seed in the Nutmeg and Custard-Apple families; cp. *uniform*: **rumination,** a tranverse line of tissue in albumen.

runcinate (L. *runcina*, a large saw), having the margin of a leaf toothed or incised with the teeth or segments pointing backward; cp. *dentate, serrate*: **runcinate-lyrate,** with the segments of a pinnatifid leaf, with large terminal lobe, directed backward.

runner, a very slender prostrate branch proceeding from the base of a stem, rooting at the nodes or tip and sending up erect stems which form new plants; a slender stolon; syn. *flagellum*; cp. *sucker, sarmentum, offset, stolon*: **running,** *repent.*

rupestrine (L. *rupes*, a cliff), growing on broken hilly ground; cp. *saxatile.*

ruptile (L. *ruptus*, broken; from *rumpo*, I break), opening irregularly, as certain capsules; cp. *prorose*: **rupture,** to burst irregularly; cp. *dehisce*: n. **rupturing.**

rural (L. *rus*, gen. *ruris*, the country), growing in situations peculiar to the country as distinct from the town.

rush family, Juncaceæ.

rusty, *rubiginose, ferrugineous*: **rust,** oxide of iron; the redness on the glumes of wheat caused by a parasite (Uredo Rubigo).

rutilans (L. *rutilus*, auburn, gold-red), deep red with metallic lustre; cp. *ruber, etc.*

S

sabulose sabulous (L. *sabulum*, sand, gravel), sandy; growing in sandy places; cp. *arenarious, glareose.*

sac (L. *saccus*, a bag), a pouch or bag: **—of the anther,** *theca*: **—of the**

embryo, the large cell of the nucleus of the ovule in which the embryo originates; syn. *embryo-sac*, *vitellus*: **saccate**, swollen like a little bag, as the short spur of some petals; cp. *scrotiform*, *gibbous*, *ampullaceous*, *etc.*: **sacciform** (L. *forma*, shape), in the form of a bag: **saccule**, a little sac, cyst or cell: adj. **saccular.**

saccharate saccharine (Gr. *saccharon*, sugar), with a sweet taste; cp. *melleous.*

saddle-shaped, *sellæform.*

sagittate (L. *sagitta*, an arrow), arrow-head-shaped; said of leaves pointed at apex, cordate at base, with the lobes directed downward; cp. *hastate*, *auriculate*, *cordiform.*

salicine (L. *salix*, a willow), a bitter substance extracted from the bark of the willow or poplar: **salicylic**, name of the acid obtained from salicine; cp. *citric*, *etc.*

salient (L. *salio*, I leap), projecting outward, as some angles; cp. *re-entering.*

salsuginose (L. *salsugo*, saltness; from *salsus*, salted), growing in salt marshes or within reach of salt water; syn. *halophytic*; cp. *uliginose.*

salver-shaped, *hypocrateriform.*

samara (L. the seed of the elm), an indehiscent dry fruit that is winged, *i.e.*, has a membranous expansion from the side or apex; syn. *key-fruit*, *pteridium*: **samaroid** (Gr. *eidos*, likeness), samara-like.

sandalwood family, Santalaceæ.

sanguine sanguineous (L. *sanguis*, blood), blood-red; greyish red; cp. *ruber*, *etc.*

sap (Ger. *saft*, juice), the juice of plants; see *crude sap*, *proper juice*: **sapling**, a young tree: **sap-green**, a pigment obtained from the berries of the buck-thorn: **sap-pigments**, *anthocyanin*, *anthoxanthin*: **sapwood**, the outer and newer layers of wood in exogenous stems through which the sap rises; syn. *alburnum*: cp. *heartwood.*

sapid (L. *sapio*, I taste), having a pleasant taste; cp. *insipid.*

sapodilla family, Sapotaceæ.

saponaceous (L. *sapo*, gen. *saponis*, soap), soapy; having the cleansing (detergent) qualities of soap: **saponine**, a substance obtained from the soap-wort (Sapindus).

saprophyte (Gr. *sapros*, putrid; *phuton*, a plant), a plant that lives on and is nourished by dead organic matter; cp. *parasite.*

sarcocarp (Gr. *sarx*, flesh; *karpos*, fruit), the outer fleshy layer of a drupe (syn. *naucum*; cp. *putamen*); a general name for indehiscent fruits that are pulpy throughout (syn. *berry*; cp. *achænocarp*, *etc.*): **sarcoid** (Gr. *eidos*, likeness), flesh-like: **sarcoline**, flesh-coloured: **sarcolobous** (Gr. *lobos*, the lobe of the ear), with thick fleshy lobes: **sarcoma**, a fleshy excrescence or disc.

sarcoderm (Gr. *sarx*, flesh; *derma*, skin), the layer, sometimes fleshy, between the outer and inner coats of the seed; cp. *endopleura*, *exopleura.*

sarmentaceous (L. *sarmentum*, a twig), assuming the character of a runner: **sarmentose**, bearing long slender branches or runners; syn. *viticulose*, *flagellate*: **sarmentiferous** (L. *fero*, I bear), producing runners: **sarmentum** pl. **-a**, a runner; syn. *viticula*, *flagellum.*

satelles (L. a companion), see *bulbil*; syn. *sautellus.*

sativus (L. sown or planted; from *sero*, I sow), cultivated; cp. *wild.*

saucer-shaped, *acetabuliform.*

sautellus, see *satelles.*

savin (L. *sabina*), the fresh or dried tops of Juniperus Sabina.

saxatile saxose (L. *saxum*, a rock), growing among rocks; cp. *rupestrine.*

saw-toothed, *dentate*, *serrate*, *runcinate.*

scabrous (L. *scaber*, rough), rough to the touch owing to scattered turbercles or the presence of short stiff hairs; syn. *asperous*; see *rough*; cp. *glabrous*, *smooth*: **scabrid scabriusculous scaberulous**, somewhat scabrous.

scalariform (L. *scalæ*, a ladder; *forma*, shape), said of tissue with bars or transverse markings, like the rounds of a ladder.

scale, a thin dry membranous body, either an outgrowth of the epidermis, or a metamorphosed leaf, or a reduced organ: **scaly**, *squamose*; see *lepidote*, *furfuraceous*, *squarrose*: —**buds**, *hibernacula*; see *tegmenta*: —**bulb**, one with only partially overlapping scales; cp. *tunicated*: —**epidermis**, one covered with an indusium of stellate hairs the rays of

which unite at base to form circular discs.

scalloped (L. *scalpo*, I engrave), with border marked by rounded teeth; syn. *crenate*.

scalpelliform (L. *scalpellum*, a surgical knife; *forma*, shape), shaped like a lancet or scalpel.

scalpriform (L. *scalprum*, a chisel; *forma*, shape), shaped like a cutting chisel.

scandent (L. *scando*, I climb), climbing; op. *voluble*.

scape (L. *scapus*, a stem), a leafless flower-stem or peduncle, usually simple, rarely branched, rising from the ground and proceeding from the stock or base of the stem or apparently from the root; syn. *radical peduncle*: **scapellus**, the neck of the germinating embryo; syn. *caudicule*: **scapiflorous** (L. *flos*, a flower), with the flowers borne on scapes: **scapiform** (L. *forma*, shape), scape-like: **scapigerous** (L. *gero*, I bear), bearing scapes.

scaphoid (Gr. *skaphé*, a skiff or boat; *eidos*, likeness), boat-like; syn. *cymbiform*, *navicular*; op. *carinate*.

scar (Gr. *eschara*, the mark left by a burn), the mark of any wound or injury (syn. *cicatrix*); the mark left on the stem after the abscission or natural fall of the leaf (syn. *leaf-scar*, *phyllula*); the mark on a seed shewing where it was attached to the placenta (syn. *hilum*).

scarious scariose (Fr. *scarieux*), thin dry, somewhat stiff, more or less transparent, and not green; op. *membranous*, *herbaceous*.

scarrose, see *squarrose*.

scattered (L. *scateo*, I disperse), thinly disposed, as leaves arranged at some distance from each other on a stem; syn. *sparse*.

schistaceous schistose (Gr. *schistos*, split), slate-blue; greyish-blue.

schizocarp (Gr. *schizo*, I cleave; *karpos*, fruit), a general name for a dry pericarp of two or more united carpels separating at maturity into as many one-seeded particles; see *cremocarp*, *carceruli*.

sciados (Gr. *skia*, a shadow; *duo*, I put on), a shade; an umbrella-like covering; see *umbraculiform*.

scientific name, that name by which a plant is known to science, as opposed to the local name, and consisting of the name of the genus (prænomen) followed by the name of the species (cognomen) according to the Linnæan or binomial system of nomenclature.

scion (Gr. *siphon*, a reed), any branch or twig; a shoot of the first year (see *annotinus*); a branch which has been cut from one plant and grafted upon another (syn. *graft*; op. *stock*); see *budding*.

sciuroidal sciuroideous (Gr. *skiuros*, a squirrel; *eidos*, likeness), bushy and somewhat curved, like the tail of a squirrel.

scler-, *sclero-* (Gr. *skleros*, hard), prefix.

scleranthium (Gr. *anthos*, a flower), an achene enclosed in a hardened portion of the calyx-tube or perianth-base, as in Mirabilis; a kind of *anthocarp*, q.v.

sclerenchyma (Gr. *engchuma*, tissue), tissue consisting of thickened and hard cells or vessels.

sclerocarpous (Gr. *karpos*, fruit), with hard carpels.

sclerogen (Gr. *gennao*, I produce), the hard matter that lines the cells in woody fibre, the stones of fruits, etc.

scleroid scleroideous (Gr. *eidos*, likeness), of a hard texture.

sclerophyllous (Gr. *phullon*, a leaf), with hard and stiff leaves.

scleropodous (Gr. *pous*, a foot), with persistent peduncles hardened and thorn-like.

sclerotic (Gr. *skleros*), hard: —**cell**, a hard thick-walled cell of irregular shape singly embedded in soft tissue or forming a layer with other similar cells.

scobiculate scobiform (L. *scobis*, sawdust; *forma*, shape), in a mass of fine grains or filings like saw-dust, as certain seeds.

scobina (L., a file), the axis that supports the spikelet of a grass: **scobinate**, rough like the surface of a file; op. *scabrous*, *etc.*

scolloped, see *scalloped*.

scorbutic (L. *scorbutus*, scurvy), relating to scurvy, a low condition of body often induced by want of vegetable food.

scorched, see *deustate*.

scorpioid (Gr. *skorpion*, a scorpion), said of false racemes or spikes coiled inward from apex to base (circinately) when young; op. *helicoid*: —**cyme**, see *cincinnus*; op. *bostryx*.

screw-pine family, Pandaneæ.

scrobiculate (L. *scrobis*, a ditch; dim. *scrobiculus*), marked by very minute narrow pits or depressions; cp. *rimulose*, *foveate*, *etc.*

scrotiform (L. *scrotum*, the bag of the testicles; *forma*, shape), shaped like a double bag or pouch; cp. *saccate*, *testiculate.*

scrub jungle (Dan. *skrub*, a bush), forest or underwood of stunted trees or bushes.

scurf (Ger. *schorf*), loosely adherent epidermal scales: **scurfy**, *furfuraceous.*

scutate scutiform (L. *scutum*, a quadrangular shield; *forma*, shape), buckler-shaped; cp. *clypeate*, *peltiform.*

scutelliform (L. *scutella*, a small flat dish; *forma*, shape), dish- or platter-shaped; cp. *pateriform*: **scutellum**, the cotyledon of a grass embryo.

scymetar-shaped, *acinaciform.*

scyphus (L. a cup), the cup or corona of the narcissus; a funnel-shaped corolla; see *infundibuliform*: **scyphiform** (L. *forma*, shape), *cup-shaped.*

scytinum (L.), a kind of legume, woody without and pulpy within; see *legume.*

sebaceous (L. *sebum*, tallow), containing or secreting oily or fatty matter: **sebiferous** (L. *fero*, I bear), producing vegetable wax.

secondary (L. *secundus*, the second), subordinate: **—axes**, those proceeding from the main axis; cp. *primary*, *ultimate.*

sect (L. *seco*, I cut), completely divided from margin to midrib into distinct parts, in comp. as *trisect*; syn. *divided*: **sectile**, divided into small pieces: **section**, a part separated by division; a group of correlated species arranged under genera or sub-genera.

secund (L. *secundus*, next in rank), said of parts or organs all turned to the same side of the supporting axis; cp. *unilateral*: **secundiflorous** (L. *flos*, a flower), with all the flowers of an inflorescence secund: **secundine**, the second coat of the ovule; cp. *tegmen*, *primine*, *etc.*

sedative (L. *sedatus*, tranquil; from *sedo*, I soothe), a medicine for allaying irritability or pain.

sedge, river-flag; L. *carex*: **sedge family**, Cyperaceæ.

seed (L. *sero*, I sow), the fertilised and matured ovule containing the embryo or rudiment of the future plant: **—coats**, the integuments of the seed; see *tegmen*, *testa*: **—leaves —lobes**, the cotyledons; cp. *primordial leaves*: **seedling**, a plant raised from seed and not from a layer cutting or bud: **seed-pod**, see *pod*: **— stalk**, *funicle*, *podosperm*: **seed-vessel**, *pericarp*, *spermotheca*; see *semen.*

segetalis (L. *seges*, gen. *segetis*, grain), growing on grain, or in grain fields; cp. *agrestis*, *etc.*

segment (L. *segmentum*, a cutting), a division of a leaf; one of the lobes or parts into which a gamosepalous calyx or gamopetalous corolla or gamophyllous perianth is divided.

segregate (L. *se*, apart; *gregare*, to collect into a group), separated from each other; cp. *aggregate.*

sellæform (L. *sella*, a seat; *forma*, shape), saddle-shaped.

semen (L.), *seed*: **seminal**, relating to the seed: **seminiferous** (L. *fero*, I bear), bearing seed; syn. *spermideous.*

semi- (L. half), prefix.

semi-adherent (L. *ad*, to; *hæreo*, I stick), adherent by the lower portion only; cp. *adherent.*

semi-amplexicaul (L. *amplector*, I embrace; *caulis*, a stem), clasping the stem by a portion only of the sessile base of the leaf; cp. *amplexicaul.*

semi-anatropous, see *amphitropous*, *anatropous.*

semifrutex (L. *frutex*, a shrub), a shrub the base alone of which is woody and perennial.

semilunate semilunar (L. *luna*, the moon), half-moon shaped; cp. *lunate.*

seminiferous, see under *semen.*

semi-ovate (L. *ovum*, an egg), plane or solid ovate, and halved lengthwise; see *ovate.*

semiterete (L. *teres*, rounded), semi-cylindrical; see *terete.*

sempervirens (L.), *evergreen.*

senary (L. *senarius*, composed of six; *seni*, six each), in sixes; said of the plan of a flower when each whorl has six parts; cp. *hexamerous.*

sensitive (L. *sentio*, I feel), shrinking or closing when touched or shaken, as the leaves of Mimosa pudica; syn. *irritable.*

sepal (L. *sepes*, a fence; Gr. *sepalon*, a coined word formed by changing "pet" in *petalon* into "sep"), one of the floral

leaves of the calyx especially when this is polysepalous; syn. *phyllum*; pl. *-a*; cp. *segment*: **sepaline sepalous,** relating to sepals: **sepaloid** (Gr. *eidos*, likeness), sepal-like: **sepalody** (Gr. *duo*, I put on), the transformation of petals or other floral organs into sepals or sepaloid organs; cp. *petalody*.

separate (L. *separo*, I sever), *distinct*: **separated,** with stamens in one flower the pistil in another; syn. *unisexual, diclinous*; cp. *hermaphrodite*: **separation-layer,** the layer of thin-walled cells formed in the petiole of a leaf where it joins the stem prior to the natural separation and fall of the leaf; syn. *abscis-layer*; see *articulation*.

sepiarius (L. *sepes*, a fence), found usually growing in hedges: **sepicolous** (L. *colo*, I cultivate), used to form hedges.

septate, see under *septum*.

septem (L.), seven: **septenary** (L. *septeni*, seven each), with seven members; said of the plan of a flower when each whorl has seven parts; cp. *heptamerous*: **septenate,** with seven leaflets proceeding from one point, *i.e.*, digitate: **septenate-pinnate** said of a compound leaf with three pairs close to each other and to the terminal odd one, so as to resemble a septenate leaf.

septicidal (L. *septum*, a partition; *cædo*, I cut), a form of dehiscence of a ripe capsule, the splitting being through the dissepiments or placentas if these be parietal; cp. *loculicidal, etc.*

septifragal (L. *septum*, a partition; *frango*, I break), a form of dehiscence of a ripe capsule when the valves break away from the dissepiments leaving the latter attached to the axis; see *loculicidally-, marginicidally-septifragal*.

septum pl. **-a** (L. a partition), any partition (proper or spurious) of an ovary or pericarp in the direction of its length; cp. *diaphragm, phragma, dissepiment*: **septiferous** (L. *fero*, I bear), bearing the partition; bearing septa: **septate,** divided by one or more partitions: **septulate,** with spurious transverse partitions; cp. *phragmigerous*: **septulum,** a partition between small cavities.

serial seriate (L. *series*, a succession), in rows, transverse or lengthwise; cp. *farious, stichous*.

sericeous (L. *sericus*, silken), covered with fine close shiny straight hairs; syn. *silky-pubescent*; cp. *bombycine, holosericeous*.

serotinous (L. *serotinus*, late); produced late; said of a plant flowering later than those to which it is related; cp. *precocious*.

serrate (L. *serra*, a saw), toothed like a saw with the teeth directed forward; cp. *argute, dentate, runcinate, inciso-serrate*: dim. **serrulate.**

sertulum (L. dim. of *sertum*, a wreath), a term for *umbel*.

sesamum family, Pedalineæ.

sesqui- (L. one and a half), prefix.

sesquipedalis (L. *pedalis*, a foot long), a foot and a half long.

sessile (L. *sedeo*, I sit), attached directly without a stalk; cp. *subsessile, pedunculate, pedicelled, petioled, stipitate*: **sessilifolious** (L. *folium*, a leaf), with sessile leaves: **sessiliflorous** (L. *flos*, a flower), with sessile flowers.

seta pl. **setæ** (L. a stiff hair; Gr. *chæta*), a bristle; the awn of a grass (syn. *arista*), the glandular hairs of some Rosaceæ: **setaceous setiform** (L. *forma*, shape), bristle-like; cp. *acicular, capillary*: **setaceo-serrate,** having the teeth of a serrate margin with bristle-like points: **setiferous** (L. *fero*, I bear), **setigerous** (L. *gero*, I bear), bearing bristles: **setose,** bristly, full of bristles; cp. *hispid*: **setula,** a minute bristle; cp. *acicula, mucro*: **setuliform** (L. *forma*, shape), short thread-like; cp. *filform*: **setulose,** bristle-like; bearing or covered with minute bristles; cp. *hispidulose*.

several (L. *separo*, I divide), separate (syn. *distinct*); many; more than one (cp. *single*); said of stigmas when distinct on a simple undivided style; said of styles when separate, *i. e.*, distinct from each other.

sex- (L. six), prefix, as **sexfarious,** in six vertical rows; syn. *hexastichous*.

sex (L. *sexus*, male or female), the structure in plants corresponding to sex in animals; see *male, female, hermaphrodite, neuter*: **sexual system,** a system devised by Linnæus, a great Swedish botanist, under which plants were classified according to the number and disposition of the styles and stamens; syn. *artificial* or *Linnæan system*: cp. *natural system*.

sextuplicate (L. *sextus*, sixth; *plico*, I fold), six-fold; six times repeated.

shaggy, *villous*.

sheath (Ger. *scheide*), a close-fitting tubular or enrolled case, as that formed

by the stem-clasping petioles of grasses; syn. *vagina*; cp. *spathe, ochrea*: **sheathing**, *vaginate.*

shell-shaped, *cochleate, conchiform.*

shield-shaped, *clypeate, peltiform, scutate, thyroid.*

shifting, changing in position at each joint.

shoe-shaped, *calceiform.*

shoot, a plant axis bearing leaves; a branch issuing from the main stem.

shrub (AS. *scrob*, a tree), a woody perennial smaller than a tree, and branching from near the base; cp. *herb, tree*: adj. **shrubby**; syn. *fruticans, dumetose*: **shrubbery**, a plantation of shrubs; cp. *arboretum.*

sialogogue (Gr. *sialon*, saliva; *ago*, I lead), a medicine tending to increase the flow of saliva; cp. *expectorant.*

siccus (L.), dry; see *hortus siccus, arefied, dessicated.*

sickle-shaped, *falcate.*

siderophloia (Gr. *sideros*, iron; *phloios*, bark), iron-barked.

sieve cells, see *cribriform cells*: **sieve-like**, *cribrose, ethmoid.*

sigillate (L. *sigilla*, a seal), marked with seal-like impressions.

sigmoid (Gr. *sigma*, the letter S; *eidos*, likeness), curved in two directions like letter S.

silky, *bombycine*: **silky pubescent**, *sericeous.*

silique siliqua (L. a pod; dim. *silicula*), a long pod with two valves applied by their faces to a persistent placenta (septum); the characteristic fruit of Cruciferæ: adj. **siliquose**: **silicle silicule**, a short siliqua nearly as broad as long: adj. **siliculose.**

silver grain, the shining tissue of the medullary rays showing in a section of the wood of exogenous stems.

silvery, *argenteous*; **silver-leaved**, *argyrophyllous.*

simple (L. *simplex*), consisting of one undivided piece; cp. *compound, single*: —**fruit**, one resulting from the ripening of a single pistil; cp. *aggregate, collective*: —**leaf**, one consisting of one blade; cp. *compound leaf*: —**pistil**, one of one carpel (monocarpellary): —**stem**, one that is unbranched; see *caudex*: —**stigma**, one not lobed nor divided; see *entire*: —**style**, undivided and consisting of one or of several united completely to form one: —**tendril**, one that is unbranched.

sinensis (L. *chinensis*), indigenous to China.

single (L. *singulus*, one alone), one, not separate; cp. *simple, several*: —**flower**, one with a normal number of petals; cp. *double*: —**fruit**, one resulting from the ripening of a single carpel; see *simple fruit*: —**pistil**, one formed of one carpel or of several carpels of a flower united (syncarpous).

sinistrorse (L. *sinistrorsus*; from *sinister*, left; *versus*, turned), turning, twining or overlapping from right to left as viewed from the outside or (in some botanic works) as viewed from within the coil; cp. *dextrorse, heterodromous.*

sinuate (L. *sinuo*, I bend), with a strongly wavy margin; cp. *repand*: **sinuous**, with wavy margin (syn. *undate*); bent to and fro (cp. *flexuose, gyrose, tortuose*).

sinus pl. **sinuses** (L., a bending or fold), the space between the divisions or lobes of a leaf; syn. *recess.*

skin, the outer layer of cells, of the stems of plants, not differentiating into bark, as the skin of bamboos; cp. *epidermis, pellicle, bark*: **skin-like**, *dermatoid.*

slashed, *laciniate.*

slender, thin; cp. *stout*: —**hair-like**, *filiform*: —**leaved**, *leptophyllous*: —**stemmed**, *tenuicaulis.*

slimy, *mucilaginous.*

sling fruit, any fruit which on maturity is itself, or has its seeds, thrown to a distance by contractile tissue; see *catapult fruit.*

slipper-shaped, *soleæform.*

smaragdinous (L. *smaragdus*, an emerald), emerald-green.

smooth, with an even surface, *i.e.*, without tubercles or protuberances; not rough; syn. *lævis*; cp. *lævigate, glabrous, scabrous.*

snake-like, *colubrine.*

snow-white, *niveous.*

snuff-coloured, *umbrine.*

soapwort family, Sapindaceæ.

soboles (L. an offset or sucker), a creeping underground stem; cp. *rhizome*: **soboliferous** (L. *fero*, I bear), having an underground stem.

solæform (L. *solum*, the sole of the foot; *forma*, shape), sole-shaped.

soleæform (L. *solea*, a sandal; *forma*, shape), sandal-shaped; cp. *calceiform*.

solid bulb, see *corm*.

solitary (L. *solus*, alone), standing by itself; syn. *isolated*; cp. *gregarious*, *unicus*.

soluble (L. *solvo*, I loose), separating into distinct portions, as certain loments by transverse articulation: **solutus** (L., loosed), separate: **solution**, the separation of parts or whorls usually adherent: **by solution**, by absorption of the septa during development, as when a more-than-one-celled ovary becomes one-celled in that way; cp. *by abortion*.

soporific (L. *sopor*, deep sleep; *facio*, I make), a medicine for inducing sleep cp. *opiate*, *narcotic*.

sordid (L. *sordidus*, unclean), of dingy hue; with more or less admixture of grey.

sorediate (Gr. *soros*, a heap), bearing small patches on the surface; cp. *acervulous*, *pollinar*.

sorema (Gr. *soros*, a heap), name for a fruit formed by the coalescence of a number of simple pistils or carpels of the same flower imbricating on the torus, as in Magnolia; a kind of *aggregate* fruit; cp. *sorosis*.

sorosis (Gr. *soros*, a heap), name for a fleshy fruit formed by the union of the carpels of several flowers into one mass, as the pine-apple, mulberry; a kind of *multiple* or *collective* fruit; cp. *sorema*, *syconium*, *strobile*, *galbulus*.

sorus, pl. **sori**, see under *spore*.

spadix (L. a palm-branch with its fruit; a date or nut-brown colour), a form of inflorescence in which sessile flowers are arranged around a thickened or fleshy axis usually enclosed in one or more sheathing bracts (spathes), as in Aroideæ (cp. *spike*); the inflorescence of Palms, so called because enclosed in a spathe before anthesis: **spadiceous**, date or nut-brown; chestnut coloured (cp. *badius*, *umber*); bearing or relating to a spadix.

span, the length from tip of thumb to tip of little finger in an out-stretched hand; about 9 inches; syn. *dodrantalis*; cp. *spithamæus*.

spananthous (Gr. *speion*, scarce; *anthos*, a flower), few-flowered; syn. *pauciflorous*.

sparse (L., *sparsus*), arranged at some distance from each other on the axis; syn. *scattered*: **sparsely**, thinly, sparingly: **sparsiflorous** (L. *flos*, a flower), with scattered flowers.

spathe (L. *spatha*, a broad blade). a large membranous sheath-like bract enclosing a flower-cluster (spadix) as in Palmæ and Aroideæ; cp. *bract*, *sheath*: **spathella**, a name for the glumes of grasses: **spathilla**, a small or secondary spathe: **spathaceous**, bearing or relating to a spathe; spathe-like.

spathulate spatulate (L. *spathula*, a spoon), plane, oblong or linear with broad rounded apex and narrow base, like a spatula; cp. *cochlear*.

spear-head-shaped, *hastate*.

species (L., a particular kind), a group of individual plants springing from a common stock, and alike in all essential particulars; one individual of such a group; cp. *genus*, *sub-species*: **specific**, relating to species; cp. *generic*: —**characters**, those essential peculiarities that distinguish one species from another of the same genus: —**name**, the second part of the scientific name of a plant; syn. *cognomen*; cp. *prænomen*, *generic name*: **specimen** (L., a sample), a part of a plant serving as a sample of the species.

speciosus (L.), beautiful.

speiranthy (Gr. *speirao*, I coil; *anthos*, a flower), twisted growth of parts of the flower: **speirema**, see *propagulum*.

sperma-, *spermi-* (Gr. *sperma*, seed) prefix.

spermaphore spermophore (Gr. *phoreo*, I bear), that part of the ovary that directly supports the seed; syn. *sporophore*, *placenta*, *funicle*, *podosperm*.

spermapodium (Gr. *pous*, a foot), the branched gynophore of Umbelliferæ; syn. *spermodophorum*.

spermatocyst (Gr. *kustis*, a bladder), see *anther*.

spermideous, producing seed; syn. *seminiferous*: **spermidium**, see *achene*.

spermoderm (Gr. *derma*, a skin), the outer coat of the seed; syn. *testa*.

spermodophorum (Gr. *phoreo*, I bear), see *spermapodium*.

spermophore, see *spermaphore*.

spermotheca (Gr. *theke*, a box), see *pericarp*.

sphær- (Gr. *sphaira*, a globe), prefix.

sphæraphides (Gr. *raphis*, a needle), globular masses of crystals found in the cells of flowering plants.

sphærenchyma (Gr. *engchuma*, tissue), tissue composed of spherical cells.

sphæroblast (Gr. *blastos*, a bud), the spherical cotyledon of some monocotyledons.

sphærocarpous (Gr. *karpos*, fruit), with globular fruit.

sphærocephalous (Gr. *kephalé*, the head), with a globular or globose flowerhead or capitulum.

sphæruline, see under *spheric*.

sphalerocarp (Gr. *sphallo*, I deceive; *karpos*, fruit), an achene enclosed in a fleshy or baccate calyx-tube, deceptively like a berry.

sphenoid (Gr. *sphen*, a wedge; *eidos*, likeness), wedge-shaped solid; cp. *cuneate*.

spheric sphæric spherical (Gr. *sphaira*, a globe), globular; cp. *rotund*; **spheroid** (Gr. *eidos*, likeness), almost spherical in shape; syn. *globose*: **sphæruline**, like a little globe.

spica spike (L. *spica*, an ear of corn), a form of inflorescence in which the flowering axis is long and undivided, and the flowers without stalks, *i.e.*, *sessile*; also a gardener's term for any kind of inflorescence (see *truss*); cp. *spadix*, *ament*, *capitulum*, *raceme*, *interrupted spike*: **spicula spikelet**, a secondary spike: —**of grasses**, *locusta*: **spicate**, arranged in spikes: **spiciferous** (L. *fero*, I bear), **spicigerous** (L. *gero*, I bear), bearing spikes; **spiciform** (L. *forma*, shape), spike-like.

spiculate spicular (L. *spiculum*, a sharp point), having sharp points; bearing spiculæ or spikelets.

spiderwort family, Commelinaceæ.

spigot-shaped, *epistomeous*.

spindle-shaped, *fusiform*.

spindle-tree family, Celastrineæ.

spine (L. *spina*), a sharp-pointed woody process usually axillary, and the homologue of a branch, sometimes a modified leaf, leaf-margin or petiole; syn. *thorn*; cp. *prickle*: dim. **spinella spinula**: **spinescent**, terminating in a sharp spine-like point (cp. *acidote*, *acuminate*, *mucronate*); bearing spines; spine-like (syn. *spinose*): **spinose spinous**, furnished with, or of the nature of, spines; syn. *acanthous*; cp *aculeate*: dim. **spinulose**: **spinuliferous** (L. *fero*, I bear), with some of the flower organs, as the sepals, ending in spine-like points.

spiral (L. *spira*, anything coiled), as if wound round an axis, like the thread of a screw; syn. *helicine*; cp. *cyclical*, *verticillate*, *cochleate*: —**ducts** or **vessels**, ducts with the interior containing a spirally-twisted fibre capable of unrolling; syn. *tracheæ*: —**phyllotaxy**, the spiral arrangement of alternate leaves on a stem; see *angular divergence*: **spire**, a spiral; syn. *helix*; cp. *cycle*: **spiricles**, the coiled threads within the hairs on the testa of some seeds; these hairs when wetted uncoil and protude forming a border (limbus): **spiroid** (Gr. *eidos*, likeness), like a spiral: **spirolobate spirolobed**, said of cotyledons that are incumbent and folded transversely, as in some Cruciferæ; cp. *-orthoploceous*.

spithamæus (L. *spithama*, a span), the length from the tip of the thumb to the tip of the forefinger when extended; about seven inches; cp. *span*.

splendent (L. *splendeo*, I shine), glittering; cp. *lævigate*, *etc.*

spodochrous (Gr. *spodos*, ashes; *chroa*, colour), of an ash-grey colour; syn. *tephrosious*.

spongelet spongiole (Gr. *sponggia*, a sponge), name for the stratum of active cellular tissue immediately behind the root-cap at the extremity of growing roots (the growing point); the root-cap of the adventitious roots of Pandanus; a term for the stigma: **spongiose spongy**, of spongy texture: **spongiopilose**, densely covered with a felted coat of interlacing hairs (tomentum); cp. *felted*, *pilose*, *tomentose*.

spoon-shaped, *cochlear*.

sporadic (Gr. *sporadikos*, scattered), occurring scattered here and there throughout a locality; widely dispersed; cp. *epidemic*, *endemic*.

spore (Gr. *spora*, a seed), the minute grains in the capsule-like bodies borne on the fronds of Cryptogamous or flowerless plants which serve the function of seeds: **sporangium**, pl -a (Gr. *anggos*, a vessel), a spore capsule; syn. *ascus*: **sorus** (Gr. *soros*, a heap), a group of sporangia, naked or more or less covered by a case called an indusium.

sporophore (Gr. *phoreo*, I bear), see *spermaphore*.

sport, *lusus*.

spreading, *patulous*.

spumose spumescent (L. *spuma*, foam), froth-like, frothy.

spur (AS. *spura*, a spur), an extension, usually hollow and nectariferous, of some part of the flower, as in Violet and Larkspur; any spur-like process; syn. *calcar*, *productum*: **spurred**, *calcarate*.

spurge family, Euphorbiaceæ.

spurge laurel family, Thymelæaceæ.

spurious (L. *spurius*, not real), counterfeit: —**dissepiment**, that formed in an ovary by a prolongation of a placenta or transversely (see *phragma*); syn. *false*; cp. *pseudo*, *quasi*, *proper*.

squama (L.), a scale; often a reduced leaf or homologue of a leaf (see *hibernaculum*): **squamate squamose**, *scaly*; beset with scales; cp. *furfuraceous*, *squarrose*): **squamiferous** (L. *fero*, I bear), **squamigerous** (L. *gero*, I bear), bearing scales: **squamella squamula**, a minute or secondary scale; pl. **squamellæ**, the small scales in the flowers of grasses (syn. *lodicules*); the small scales on the receptacle of some Compositæ: **squamulose**, covered with minute scales; syn. *lepidote*.

squarrose (L. *squarra*, roughness of the skin through scurf), rough, with jagged projections; said of imbricating scales bracts or leaves with tips pointed and spreading or recurved; cp. *squamose*.

St. John's wort or Tutsan family, Hypericineæ.

stachys (Gr. *stachus*, a spikelet of a grass), a spike, q. v.; used in comp. as *polystachyous*.

stachytarpheta (Gr. *tarpheios*, dense), an ornamental shrub with many densely flowered spikes.

stalk (Gr. *stelekos*), the stem or lengthened support of an organ; syn. *stipe*; cp. *blade*; see *peduncle*, *pedicel*, *petiole*, *podogynium*, *etc.*: **stalked**, *stipitate*.

stamen (L., the warp of an upright loom; from *sto*, I stand), one of the parts of the whorl or whorls comprising the male organ (androecium) of the flower, and consisting of filament and anther; cp. *pistil*: **staminate staminiferous** (L. *fero*, I bear), bearing stamens: **staminal stamineal staminous**, relating to the stamens: **staminate flower**, a male flower, *i.e.*, one with stamens but no pistil; syn. *sterile flower*; cp. *pistillate flower*: **staminode staminodium** (Gr. *eidos*, likeness), a stamen or its homologue, without anther; a rudimentary or abortive stamen; cp. *sterile stamen*: **staminody** (Gr. *duo*, I put on), the metamorphosis of petals or other organs of the flower into stamens; cp. *petalody*, *etc.*

standard (L. *stans*, standing), the large posterior petal of a papilionaceous flower; the large petal of Impatiens next the axis; syn. *banner*, *vexillum*; see *lip*.

stans (L. standing), erect.

starch, a substance occurring often abundantly in plant cells in the form of granules; a ternary compound of Carbon, Hydrogen and Oxygen turning blue when treated with Iodine; syn. *fecula*; see *diastase*, *sugar*, *glucose*.

star-shaped, *stellate*.

stasimorphy (Gr. *stasis*, a standing; *morphe*, shape), change of form caused by arrested development: adj. **stasimorphous**.

station (L. *statio*, a place of sojourn), the locality where a plant grows naturally whether in water or on land, on hills or on plains; cp. *habitat*.

statospermous (Gr. *statos*, stationary; *sperma*, a seed), with seed erect in the pericarp; see *orthotropous*.

staurophyllous (Gr. *stauros*, a cross; *phullon*, a leaf), with leaves arranged cross-wise; see *cruciate*, *decussate*.

stellate stelliform (L. *stella*, a star; *forma*, shape), star-shaped; with members radiating from a common centre like the points of a star: dim. **stellular**: **stellate-hairy**, covered with star-shaped hairs.

stem (AS. *stemm*), the principal axis of a plant, ascending or sometimes growing on or under ground (see *rhizome*), producing buds which grow into branches that bear the leaves, flowers and fruits; cp. *root*; see *trunk*, *bole*: —**clasping**, *amplexicaul*: **stemless**, *acaulescent*: **stemlet**, the nascent stem of the plumule; syn. *caulicle*, *radicle*, *hypocotyl*.

steno- (Gr. *stenos*, narrow), prefix.

stenocarpous (Gr. *karpos*, fruit), with narrow fruit; cp. *leptocarpous*.

stenophyllous (Gr. *phullon*, a leaf), with narrow leaves.

stercoraceous stercorous (L., *stercus*, dung), *fœtid*, *teter*: **stercoral**, relating to or resembling dung or manure.

stereo- (Gr. *stereos*, solid), prefix.

stereospermous (Gr. *sperma*, a seed), with solid seed.

sterigma (Gr., a prop or support), the prolongation of a leaf-blade down the stem when *decurrent*, q. v.

sterile (L. *sterilis*), barren: —**anther**, one without pollen: —**flower**, one without pistil; syn. *staminate flower*: —**ovary**, one without ovules: —**stamen**, one without anthers or with sterile anthers; cp. *staminode*.

sternutatory (L. *sternuo*, I sneeze), having the quality of provoking sneezing.

stichocarpous (Gr. *stichos*, a row; *karpos*, fruit), with fruit spirally arranged about an axis.

sticky, *viscous*, *ixous*.

stictopetalous (Gr., *stictos*, a point; *petalon*, a petal), with the petals covered with glandular points.

stigma (Gr., a mark; pl. *stigmata*), that part of the pistil (usually the apex of the style) that receives the pollen for the fecundation of the ovules; this is formed of cellular tissue without epidermis and is moist when mature, *i.e.*, ready for the reception of the pollen: **stigmatic**, relating to the stigma: **stigmatiferous** (L. *fero*, I bear), stigma-bearing: **stigmatophore** (Gr. *phoreo*, I bear), that part of the style that bears the stigma: **stigmatostemonous** (L. *stemon*, a stamen), with the stamens cohering to the stigma; cp. *gynandrous*.

stimulose (L. *stimulus*, a sting), with the surface covered by stings, *i.e.*, sharp stiff hairs seated on glands which secrete an acrid juice; see *urens*.

stipate (L. *stipo*, I press together), crowded together; syn. *aggregate*.

stipe (L. *stipe*, gen. *stipitis*, a stalk), any stalk-like support; the stem of a palm or tree-fern (syn. *caudex*); the petiole of a fern-frond; the stalk of an ovary or gynœcium (see *thecaphore*, *gynophore*, *etc.*): **stipitate**, stalked; said of any part of a plant, except the leaf, leaflet, flower or inflorescence, which is elevated on a stalk; cp. *petiolate*, *pedunculate*, *pedicelled*, *suffultous*: **stipitiform** (L. *forma*, shape), stalk-like.

stipel, see under *stipule*.

stiptic, see *styptic*.

stipule (L. *stipula*, the stalk or haulm of a grass), an appendage of a leaf, usually two, one on either side of its insertion, or at the base of the petiole, foliar, scarious, scaly, or spinous, distinct or connate, or sheathing (as in Polygonum): **stipulaceous**, relating to stipules: **stipular stipulary**, occupying the place of stipules, as some tendrils: **stipulate**, provided with stipules: **stipuliferous** (L. *fero*, I bear), bearing stipules: **stipulose**, with conspicuous stipules: **stipel**, a secondary stipule; the stipule of a leaflet, usually one at the base of each in a compound leaf with two at the base of the terminal leaflet: adj. **stipellate**.

stirps (L., a branch, shoot), *race*: —**palaris** (L.), a standard stem, erect, unbranched.

stock, a persistent variety or one capable of being reproduced by seed (syn. *race*, *etc.*); the parent forms from which hybrids are derived; that part of a stem that bears a graft or scion (see *budding*); the persistent base of perennial herbs the stems of which die down annually (see *caudex*); any root-like underground stem, as a *rhizome*, *etc.*

stolo stolon (L. *stolo*, a shoot or sucker), a prostrate or reclined branch rooting at intervals or only at the tip, and giving off shoots which become independent plants; the internodes are usually shorter than in the runner; cp. *runner*, *sucker*, *offset*, *rhizome*: **stoloniferous** (L. *fero*, I bear), producing stolons; cp. *flagellate*.

stomachic, see *tonic*.

stomates, stomata pl. of **stoma** or **stomate** (Gr. *stoma*, a mouth), organised openings in the epidermis of leaves serving to regulate the passage of air and water; syn. *breathing pores*; see *guard cells*: **stomatiferous** (L. *fero*, I bear), provided with stomata.

stone, the hard inner layer (endocarp) of a drupe; syn. *putamen*: —**fruit**, a drupe with hard or woody putamen or with distinct one-seeded stones or pyrenes: **stony**, *lapideous*.

stonecrop or house-leek family, Crassulaceæ.

stool (Ger. *stuhl*), name for any plant used to form independent plants by means of layers or stolons; the stump of a tree that gives out shoots: —**shoots**, the stems that arise from a stool or stump of a tree; see *coppice*.

storax or benzoin family, Styraceæ.

stout, thick in proportion to its length; cp. *slender*, *strong*.

straight, not curved; cp. *strict*: —**ovule**, see *orthotropous*.

stramineous (L. *stramen*, straw), straw-like; yellow with tinge of grey; syn. *festucine.*

strangulated (L. *strangulo*, I choke), deeply and irregularly contracted at intervals; cp. *moniliform.*

strap-shaped, *ligulate, lorate.*

stratum (L., a layer), a bed or layer of tissue; cp. *lamina, stroma*: **stratose**, arranged in layers; cp. *laminated.*

strepitant (L. *strepito*, I rattle), rattling, rustling loudly.

strepsi- (Gr. *strepho*, I twist), prefix, twisted.

strepsipterous (Gr. *pteron*, a wing), with twisted wings.

strepto- (Gr. *strepho*, I twist), prefix, spirally marked.

streptocarpous (Gr. *karpos*, fruit), having fruit marked by spirally arranged stripes.

striate striated (L. *stria*, a furrow), marked with striæ, *i.e.*, thin thread-lines or minute furrows; cp. *vittate, canaliculate, lirellate, sulcate.*

strict (L. *strictus*, drawn together), straight or nearly so, and close or narrow; cp. *rigid.*

strigose (L. *striga*, a ridge left in ploughing), covered with strigæ, *i.e.*, sharp-pointed straight stiff hairs of unequal length lying close along the surface (adpressed), and forming minute ridges; cp. *felted, hispid, etc.*: dim. **strigillose.**

strobile strobilus (Gr. *strobilos*; L. *strobilus*, a cone), a scaly multiple fruit formed by the ripening of a catkin largely composed of imbricating scales; the characteristic fruit of Coniferæ; cp. *galbulus*: **strobilaceous strobiliform strobiline**, relating to or like a fir-cone: **strobiliferous** (L. *fero*, I bear), bearing cones.

stroma (Gr.), a stratum; a fleshy thallus, as in some Fungi.

strombuliform (L. *strombus*, a spiral snail; *forma*, shape), spirally twisted like a corkscrew.

strong, said of leaf-nerves when large and prominent; cp. *faint*: **strongly**, in a marked degree.

strophiole (L. *strophium*, a wreath; dim. *strophiolum*), a crest-like appendage on the raphe, or proceeding from just below the base (hilum) of certain seeds; cp. *caruncle, aril, arillode, lophiostomate*: **strophiolate**, provided with a strophiole.

structural (L. *structura*, a fitting together), a term applied to that branch of the science of Botany that deals with the forms of the component parts of plants; cp. *physiological, systematic.*

struma (L., a tumour), a cushion-like swelling of an organ; a swelling at the junction of petiole and leaf-blade or of leaflet and rachis in some species: adj., **strumose**: dim. **strumulose**: **strumiform** (L. *forma*, shape) wen-like; cp. *pulvinate.*

strychnos family, Loganiaceæ.

stupose (L. *stupa*, tow), with tufts of long matted hair like tow; cp. *aspergilliform, cæspitose, comose, tomentose.*

stygian (L. *Styx*, a river in the infernal regions), growing in foul water.

style (L. *stilus*, a stake; Gr. *stulos*, a column), the prolongation of the ovary forming a stalk bearing the stigma; see *pistil*: — **scar**, the mark on the ovary left after the falling away of the style: **styliferous** (L. *fero*, I bear), style-bearing: **styliform** (L. *forma*, shape), style-shaped: **styline**, belonging to the style: **styliscus**, a chord of peculiar tissue extending from the stigma through the style to the ovary: **stylodeous**, furnished with a style: **stylose**, with remarkable styles, *i.e.*, very large or very numerous.

stylewort family, Stylideæ.

stylopodium (Gr. *stulos*, a column; *pous*, a foot), a fleshy disc at the base of some styles, as in Umbelliferæ.

stylostegium (Gr. *stulos*, a column; *stego*, I cover), a peculiar form of hood (cucullus) covering the style in certain flowers; cp. *gynostegium.*

styptic (Gr. *stuptikos*, astringent), having the property of stopping bleeding; cp. *traumatic.*

suave suaveolens (L. *suave*, sweetly; *oleo*, I smell), of an agreeable odour; cp. *olens, graveolens, fœtid.*

sub- (L., under), prefix, somewhat, almost or under.

sub-alpine, in the tropics at an elevation of 10—12,000 feet; syn. alpestrine; cp. *alpine, temperate.*

sub-basal, situated near the base.

sub-class, a division immediately subordinate to class.

sub-convolute (L. *con*, together; *volutus*, rolled), convolute with but one leaf of five wholly without and the next one to it wholly within the coil; cp. *convolute, imbricate, sub-imbricate.*

sub-difformed (L. *dis*, away from; *forma*, shape), somewhat irregular.

subequal, nearly equal.

suberin (L. *suber*, the cork tree), the substance or group of substances present in corky cell-walls: **suberose suberous**, corky.

subex (L.), a stem bearing scale leaves.

sub-genus, a division immediately subordinate to genus.

sub-globose, somewhat *globose.*

sub-herbaceous, see *suffrutescent.*

subiculum (L.), an under-layer.

subimbricate (L. *imbrex*, a tile), convolute but with one leaf of five wholly without and one, not the one next to it, wholly within the coil; cp. *convolute, imbricate, sub-convolute.*

sub-jacent (L. *jacio*, I throw), lying under but not exactly beneath.

sublatus (L. *latus*, borne), said of an ovary when it has, or appears to have, a support; cp. *stipitate.*

sub-median, said of a bracteole when inserted about the middle of the pedicel; cp. *median.*

submerged (L. *mergo*, I plunge into water), entirely covered by water: **submersed**, ordinarily growing under water; syn. *immersed*; cp. *aquatic, etc.*

subopposite, said of leaves inserted nearly opposite to each other on a node; cp. *geminate, opposite.*

sub-order, a division immediately subordinate to order.

subpetiolar (L. *petiolus*, a little foot), formed under and within the protecting sheathing base of the leaf-stalk, as the leaf-buds of the Plane tree.

subsessile (L. *sesso*, sitting), with a very short stalk or support; cp. *sessile.*

sub-species, a permanent variety of a species; syn. *proles, race, stirps, stock.*

sub-temperate, in the tropics at an elevation of 3—6,000 feet; syn. *sub-tropical*; cp. *temperate.*

subtended (L. *tendeo*, I stretch), having an organ or process close below, as some leaves subtended by bracts.

subterminal (L. *terminus*, the end), situated near the apex.

subterranean (L. *terra*, the earth), underground; syn. *hypogæous.*

sub-tropic sub-tropical, in the tropics at an elevation of 3—6,000 feet; syn. *sub-tempercte*; cp. *tropical.*

subulate subuliform (L. *subula*, an awl; *forma*, shape), shaped like a cobbler's awl; narrow, stiff and tapering; cp. *aristate, acicular, etc.*: **subuliferous** (L. *fero*, I bear), bearing awl-shaped spines.

succinct (L. *sub*, under; *cinctus*, girded), coiled inward in bud (syn. *circinate*); compressed into a narrow space.

succineous (L. *succinum*, amber), amber-coloured; yellow tinged with grey: **succinic**, obtained from amber: **succinous**, relating to or resembling amber.

succise (L. *succisus*, lopped off), as if lopped off at the lower end, as certain roots or rhizomes terminating abruptly; cp. *truncate, præmorse.*

succose succulent (L. *succus*, juice), with abundant cellular tissue full of juice; more juicy than *fleshy*, q.v.; syn. *pulpy*; cp. *dry.*

succubous (L. *succumbo*, I lie under), said of leaves so arranged on the stem that the apex of each leaf is covered by the base of the next above.

sucker (L. *sugo*, I suck), an ascending stem arising from an underground creeping base which proceeds from the neck (collum) of the plant just below the surface of the ground (syn. *surculus*; cp. *turion, stolon, offset, runner*); an aerial rootlet of a climber; the tubercular process that forms the root of some parasites (syn. *haustorium*).

sudorific (L. *sudor*, sweat; *facio*, I make), a medicine for inducing perspiration; syn. *diaphoretic.*

suffrutescent (L. *sub*, under; *frutex*, a shrub), low, somewhat woody and branching from near the ground; syn. *sub-herbaceous*: **suffruticose**, said of plants when low, woody, and branching from near the ground; forming an undershrub; cp. *fruticose*: **suffrutex**, *undershrub.*

suffultous (L. *suffulcio*, I support underneath), said of an organ when supported by being propped up by another immediately beneath it; cp. *stipitate.*

sugar, an organised compound formed from starch by the action of diastase, and

occurring in stems, buds, fruits, germinating seeds, etc.

suite (Fr., a retinue), a series: —**of specimens**, a complete series of specimens illustrating a species, genus, or other group of plants.

sulcate (L. *sulcus*, a furrow), grooved or furrowed with the depressions more or less parallel; cp. *canaliculate, lirellate.*

sulphureous (L. *sulphur*, brimstone), pale yellow.

sundew family, Droseraceæ.

super- (L. above, in excess), prefix.

super-axillary (L. *axilla*, the armpit), inserted on the stem just above the axil of the leaf; syn. *supra-axillary*; cp. *extra-axillary.*

superbus, (L. proud), grand, magnificent.

supercomposite (L. *compositus*, placed together), several times compound; syn. *decompound, decomposite.*

superficial (L. *superficies*, the surface), upon the surface.

superior (L.), above; said of that portion of an axillary or lateral flower that is next the axis of inflorescence; syn. *posterior, upper*; cp. *inferior*: —**calyx**, one adnate to or inserted on the ovary; syn. *epigynous*: —**micropyle**, one directed towards the top of the ovary when, in an anatropous ovule, the raphe is ventral: —**ovary**, one free from or inserted above the calyx; cp. *half-superior*: —**radicle**, one pointing towards the apex of the seed; syn. *ascending.*

superposed (L. *pono*, I place), placed vertically one above the other; cp. *collateral*: **superposition**, the insertion of the members of a flower-whorl above not between the members of the preceding whorl, as stamens before petals (oppositipetalous); syn. *anteposition.*

supertuberation (L. *tuber*, a swelling), the growth of young tubers on the old while the latter are still growing attached to the parent plant.

supervolute (L. *volutus*, rolled), plaited with the plaits convolute, as in the buds of Convolvulus and Datura; cp. *convolute.*

supine (L. *supinus*, inclined backward), lying flat with face upward; cp. *prone.*

suppression (L. *supprimo*, I press under), entire non-development of an organ normally present: **suppressed**, absent through non-development; cp. *aborted.*

supra (L., above, before, beyond), prefix.

supra-axillary, see *super-axillary.*

supra-decompound, several times compound; syn. *decompound, decomposite, super-composite.*

supra-foliar supra-foliaceous (L. *folium*, a leaf), inserted higher on the stem than a particular leaf: **suprafolious**, attached to or growing upon a leaf; syn. *epiphyllous.*

supramedian (L. *medius*, the middle), said of a bracteole when inserted above the middle of the pedicel; cp. *median.*

surculus (L.), an upright stem arising from an underground creeping base proceeding from the parent stem; syn. *sucker*; cp. *haustorium, viticula*: **surculose surculigerous** (L. *gero*, I bear), producing suckers.

sursum (L.), upwards; cp. *deorsum.*

suspended (L. *suspendo*, I hang), hanging straight downward, as an ovule from the apex of a cell of the ovary; syn. *pendent*; cp. *pendulous*: **suspensor**, the chain of cells that attaches the embryonal vesicle to the embryo-sac; syn. *proembryo.*

suture (L. *sutura*, a seam; from *suo*, I sew), a seam indicating the line of union of two parts (see *dorsal* and *ventral suture*); a line of opening or dehiscence: **sutural**, relating to a suture: —**placentation**, the insertion of ovules on the ventral suture of a single carpel, as in the pea plant, answering to the axile placentation of a syncarpous pistil; cp. *axile.*

switch plants, those with reduced or aborted leaves and with thin rod-like branched stems which perform the function of leaves (see *cladole*), as in Spartium, some rushes, and some sedges.

sword-shaped, *ensate, ensiform, acinaciform, gladiate, xiphoid.*

syconium syconus (Gr. *sukon*, a fig), a multiple fruit consisting of a hollow pulpy receptacle bearing within numerous achenes or the remains of many flowers; the characteristic fruit of the genus Ficus; syn. *hypanthodium*; cp. *grossus, sorosis.*

sylvaticus sylvestris (L. *silva* or *sylva*, a wood), growing in woods; wild.

sym- (Gr. *sun*, together, united), prefix.

symbiosis (Gr. *bios*, life), the intimate union and living together for mutual profit of different organisms, as a fungus and alga to form a lichen, as fungi

attached to roots of certain trees, and as insects and certain (myrmecophilous) plants.

symmetrical (Gr. *metron*, a measure), said of a flower which has an equal number of members in each whorl or cycle; cp. *isomerous*.

sympetalous (Gr. *petalon*, a petal), with united petals; syn. *gamopetalous*; cp. *apopetalous*.

symphiantherous (Gr. *phuo*, I grow; *anthos*, a flower), having stamens united by their anthers; syn. *synantherous*, *syngenesious*.

symphoricarpous (Gr. *phoreo*, I bear; *karpos*, fruit), bearing aggregate fruits.

symphysis (Gr. *sumphusis*, a growing together; from *phuo*, I grow), a growing together of similar parts; syn. *coalescence*; cp. *adnation*.

symphystemonous (Gr. *phuo*, I grow; *stemon*, a stamen), with united stamens; syn. *synandrous*, *monadelphous*.

symphytogynous (Gr. *sumphusis*, a growing together; *gune*, a female), **symphytothelous** (Gr. *thele*, a nipple), with calyx more or less adnate to ovary; see *superior*.

sympode sympodium (Gr. *pous*, a foot), a stem prolonged by means of the axillary buds which each in turn develops a branch that becomes a leader, the series of superposed branches resembling a simple axis; cp. *monopode*.

syn- (Gr. *sun*, together, united), prefix.

synacmy (Gr. *akmé*, the point), see *synanthesis*.

synandrous (Gr. *aner*, a male), with united stamens; syn. *symphystemonous*, *monadelphous*.

synantherous (Gr. *anthos*, a flower), with stamens united by their anthers; syn. *syngenesious*, *symphiantherous*, *monogamous*.

synanthesis (Gr. *antheros*, bloom), the simultaneous ripening of the stigma and anthers of a flower; syn. *synacmy*; cp. *heteracmy*, *protandry*, *protogyny*.

syncarp syncarpium (Gr. *karpos*, fruit), a fruit formed by the union of several carpels which have become compacted and fleshy; this is simple when the fruit is aggregate, complex when the fruit is multiple: **syncarpous**, with united carpels; cp. *gamogastrous*, *apocarpous*.

synchronous (Gr. *chronos*, time), occurring at the same time.

syncotyledonous (Gr. *kotuledon*, a cup-like hollow), with the cotyledons of a dicotyledonous plant firmly united so as to form one mass.

synedral (Gr. *hedra*, a side), growing on the angles.

synema (Gr. *iemi*, to cast), a column formed by the union of filaments as in Malvaceæ; cp. *systylus*.

syngenesious (Gr. *gennao*, I produce), with stamens united by their anthers; syn. *monogamous*, *synantherous*, *symphiantherous*.

synochorion (Gr. *chorion*, skin), a term for *carcerule*.

synochreate, see *ochreate*.

synonym (Gr. *onoma*, a name), a word having the same meaning as another, as symphysis, *syn.* (*i.e.*, synonym of) coalescence; also in botanical nomenclature all the scientific names given from time to time to a species are the synonyms of the name that is finally adopted: n. **synonymy**: adj. **synonymous**.

synsepalous (Gr. *sepalon*, a sepal), see *gamosepalous*.

synspermous (Gr. *sperma*, a seed), with the seeds united.

synstigmaticous (Gr. *stigma*, a mark), adhering to the stigma by a viscid gland, as the pollen-mass in some orchids; see *retinaculum*.

synzygia (Gr. *zugon*, a yoke), the point of junction on the embryo stem of the two cotyledons of dicotyledonous plants.

system (Gr. *sustema*, a collection of things in regular order; from *sun*, with; *histemi*, I place), a plan under which natural objects are classified in regular order; see *natural* and *Linnæan system*: **systematic**, according to system: —**botany**, that branch of the science of Botany that deals with the different kinds of plants, their classification, nomenclature, mutual relations, etc.; cp., *structural*, *physiological*.

systole (Gr. *sustolé*, a drawing together), the contraction and expansion of some vacuoles.

systylus (Gr. *sun*, together; *stulos*, a column), a column formed by the union of two or more styles; cp. *synema*.

T

tabacine (Sp. *tabaco*), of the colour of the cured leaves of tobacco; grey with a tinge of reddish yellow.

tabescent (L. *tabes*, a melting), a gradual wasting away; cp. *marcescent, emarcidate.*

tabula (L., a board), see *pileus*: **tabular**, in plate-like masses: —**tissue**, that like bricks in a wall; syn. *muriform*: —**roots**, syn. *parietiform*: **tabulated**, in superimposed plate-like layers; cp. *stratose, laminated.*

tænioid (Gr. *tainia*, a ribbon; *eidos*, likeness), ribbon-shaped.

tail, any long and slender terminal process or appendage: **tailed**, *caudate.*

talaria (L., the winged sandals of Mercury), a name for the wings or side petals of a papilionaceous corolla; see *alæ.*

talea (L.), a slip or cutting taken from a plant for propagating purposes; syn. *cutting, virgultum.*

tamarisk family, Tamariscineæ.

tan (F. *tan*, bark of oak), crushed bark containing tannin and used for converting skins into leather; of a tan colour, yellowish brown: **tannic**, name for the astringent acid obtained from oak-galls and from the bark of oak, mangrove and other trees; cp. *gallic acid*: **tannin**, tannic acid.

tapering, gradually narrowed: —**at apex, taper-pointed**, *acuminate.*

taphrenchyma (Gr. *taphros*, a trench or pit; *engchuma*, tissue), tissue consisting of dotted or pitted vessels; syn. *bothrenchyma.*

tap-root, a primary root resulting from a direct prolongation of the radicle of the embryo; cp. *adventitious root.*

tart (A.S. *teart*, biting), sharply acid to the taste.

tartaric (L. *tartarum*, the crust formed in wine casks), name for the acid found in tartar and in the juice of certain fruits, as the grape; cp. *citric, etc.*: **tartarous**, like tartar; rough and crumbling to the touch, as some lichens.

tawny (F. *tan*, dark-coloured), of a yellowish brown like tanned leather; syn. *tan*; cp. *cervinous, fulvous, fuscous.*

taxology (Gr. *taxos*, an arrangement; *logos*, a discourse), **taxonomy** (Gr. *nomos*, a law), the science of botanical classification.

tea family, Ternströmiaceæ.

teazlewort family, Dipsaceæ.

teeth, small pointed marginal lobes; see *dentate, etc.*

tegmen (L., a covering), the inner coat of a seed; syn. *endopleura*; cp. *secundine, testa, mesosperm*; also a term sometimes given to the glumes of grasses: **tegmenta**, the scaly coats or outer scales of a leaf-bud; cp. *hibernacula*: **tegminate**, invested by a covering, as the nucleus of the ovule in some seeds; see *tercine*: **tegument**, see *integument.*

tela (L.), a web or web-like mass, as elementary or cellular tissue.

teleianthous (Gr. *teleios*, perfect; *anthos*, a flower), having both stamens and pistil in one flower; syn. *perfect, hermaphrodite.*

temperate (L. *tempero*, I make mild), at an elevation of 6—10,000 feet in the tropics; cp. *sub-temperate, tropical*: **temperate zones**, two belts of the earth's surface, one north of the Equator extending from the Tropic of Cancer (23°28′ N.) to the Arctic Circle (66°30′ N.) the other south of the Equator extending from the Tropic of Capricorn (23°28′ S.) to the Antarctic Circle (66°30′S.); cp., *tropics.*

temulentous (L. *temulentum*, drunken), nodding in a jerky irregular manner; cp. *nutans.*

tendril (F. *tendron*, a tender shoot), a slender process either foliar or belonging to the axis and serving as a holdfast or support in climbing; syn. *cirrhus*; cp. *sucker*: —**bearing**, *cirrhose, capreolate.*

tentacle (L. *tentaculum*, a feeler; from *tento*, I touch), an irritable hair or process from a leaf, as in Venus Flytrap and Sundew.

tenui- (L. *tenuis*, thin, slender), prefix; see *lepto-*.

tenuicaulis (L. *caulis*, a stalk), slender-stemmed.

tenuifolious (L. *folium*, a leaf), slender-leaved; syn. *leptophyllous.*

tephrosious (Gr. *tephros*, ash-coloured), of a pale ash-grey colour; syn. *spodochrous.*

teratology (Gr. *teras*, a wonder; *logos*, a discourse), the science of malformations or monstrous forms: adj. **teratological.**

tercine (L. *tertius*, the third), the third coat of the ovule forming a covering for the nucleus in some seeds; cp. *primine*, *etc.*

terconjugate, see *tergeminate.*

terebinthine (Gr. *terebinthos*, the terebinth tree,) of the nature of turpentine, an oily resinous substance produced by several species of Coniferæ.

terete (L. *teres*, rounded), cylindrical; rounded, not angular, in cross-section; cp. *triquetrous.*

tergeminate (L. *ter*, thrice; *gemini*, twins), thrice-twin; with a pair of leaflets each consisting of a pair, each of which also have a pair of leaflets; syn. *terconjugate*; cp. *biconjugate.*

terminal (L. *terminus*, the end, limit), proceeding from, at, or relating to the end or summit: —**inflorescence**, see *cymose*: **terminology**, nomenclature as applied to parts or organs of plants; syn. *glossology.*

ternary (L. *terni*, three together), said of the plan of a flower when there are three members in each whorl; cp. *trimerous*: —**hybrid**, one resulting from the crossing of a hybrid with a species different from either of the parent forms: **ternate**, three in a whorl or cluster: —**leaf**, one that is compound with three leaflets proceeding from the same point; syn. *ternatisect*: —**leaves**, three at a node (verticillate): **ternate-pinnate**, pinnate with three leaflets on such short petioles as to make the leaf appear ternate: **ternatisect**, see *ternate leaf.*

terrestrial (L. *terrester*, earthly; from *terra*, the earth), growing upon the earth; cp. *marine*: —**orchids**, those that root in the ground; cp. *epiphytic*: —**roots**, those that penetrate the soil; cp. *aerial*: **terraneous terrestris terricolous** (L. *colo*, I cultivate), growing on dry land; cp. *aquatic.*

tertiary (L. *tertius*, the third), a term applied to the branches of the secondary axis; cp. *primary, secondary.*

tesselated (L. *tessera*, a square or cube; dim. *tessela*), marked with small squares or oblong patches of different colours somewhat like a mosaic: **tessular**, in the form of a cube.

testa (L., a shell, an earthen pot), the outermost coat of the seed; cp. *tegmen, primine*: **testaceous**, shelly; of the colour of ordinary unglazed pottery, dull brownish yellow or brick-red; cp. *lateritous.*

testiculate (L. *testiculus*, a testicle), with two oblong or oval tubercules set together, as the roots of some orchids; cp. *scrotiform*: **testiculus**, a term for anther.

teter (L.), foul, noisome; syn. *fœtid.*

tetra- (Gr. four), prefix.

tetracamerous (L. *camera*, a chamber), with four cells in the fruit.

tetracarpellary (Gr. *karpos*, fruit) consisting of four carpels: **tetracarpous**, consisting of four fruits or carpels.

tetracoccous (Gr. *kokkos*, a kernel), with four *cocci*, q. v.

tetrad (Gr. *tetra*, four), a group of four cells (as pollen grains), one at each corner of a tetrahedron.

tetradynamous (Gr. *dunamis*, force), with four long and two shorter stamens, as in Cruciferæ; cp. *didynamous.*

tetragonous (Gr. *gonia*, an angle), four-angled; cp. *tetraquetrous.*

tetragynous (Gr. *gune*, a female), with four styles or sessile stigmas, hence the Linnæan order Tetragynia.

tetrahedron (Gr. *hedra*, a base or seat), a pyramid with the sides and base formed of four equilateral triangles.

tetramerous (Gr. *meros*, a part), said of a flower with four parts or members in each whorl; cp. *quaternary.*

tetrandrous (Gr. *aner*, a male), with four stamens.

tetrapetalous (Gr. *petalon*, a petal), with four distinct petals; see *polypetalous.*

tetraphyllous (Gr. *phullon*, a leaf), with four distinct leaves in the perianth; see *polyphyllous.*

tetrapterous (Gr. *pteron*, a wing), with four wing-like processes.

tetraquetrous (L. *quadra*, square), with four salient angles and concave sides; cp. *tetragonous.*

tetrasepalous (Gr. *sepalon*, a sepal), with four distinct sepals.

tetraserial tetraseriate (L. *series*, a row), in four rows, lengthwise or transverse; cp. *tetrastichous.*

tetrastichous (Gr. *stichos*, a row), in four vertical ranks; syn. *quadrifarious*; cp. *tetraseriate.*

thalamus (L., a marriage bed), the axile portion of a flower forming the support of the sepals, petals, stamens, and pistil; syn. *torus*; see *receptacle*: **thalamifloral** (L. *flos*, a flower), with the parts of the flower inserted under the ovary upon he

receptacle which is small or elongated; cp. *disciflorał*: **Thalamiflorœ**, a division of Polypetalæ, *i.e.*, certain plants with polypetalous flowers.

thallus (L., a young shoot), a broad cellular expansion serving for stem and foliage, *i.e.*, not differentiated into stem and leaves; see *stroma*: **thallophyte** (Gr. *phuton*, a plant), a plant without a proper axis, as stem and root, and consisting only of cellular tissue; cp. *cormophyte*.

theca (Gr. *thekė*, a case), the lobe or cell of an anther; a term once applied to the whole anther; cp. *loculus*: **thecaphore** (Gr. *phoreo*, I bear), the stipe or stalk of a simple pistil, and forming no part of the receptacle; cp. *gynophore*.

thelephorous (Gr. *thele*, a nipple; *phoreo*, I bear), covered with nipple-like processes or projections; cp. *papilose*, *etc.*

thickened, *incrassate*.

thorn, see *spine*.

thread-like, *filiform*.

thrift or leadwort family, Plumbagineæ.

throat, *faux*.

thuriferous (L. *thus*, gen. *thuris*, incense; *fero*, I bear), yielding frankincense, a gum-resin that diffuses an aromatic odour when burnt.

thyroid (Gr. *thureos*, a shield; *eidos*, likeness), shield-like; syn. *peltiform*; cp. *clypeate*, *scutate*, *etc.*

thyrse thyrsus (L., the wand of Bacchus wound round with ivy or vine leaves), a compound inflorescence forming a compact panicle narrower at both ends than at the middle where the branches are longer, the main axis botryose, the lateral axes cymose; see *cymo-botryose*.

tigella tigelle tigellus (Fr. *tigelle*, a little stem), the initial stem of the embryo; a term sometimes applied to only that portion that is above or below the cotyledons; see *radicle*: **tigellary**, with sheathing portion of leaf united with the stem: **tigellate**, with a distinct or remarkable caulicle: **tigellula**, a minute stem.

tinctorius (L., relating to dyeing; from *tingo*, I colour), capable of imparting a dye; used in dyeing; a specific term.

tissue (Fr. *tisser*; L. *texere*, to weave), minute elementary structure of plants or animals; contiguous aggregation of cells having common origin; see *parenchyma*, *etc.*

toise (Fr., a fathom), about six feet in length.

tomentose (L. *tomentum*, the stuffing of a cushion), densely covered with short soft and tangled hairs like matted wool; cp. *pubescent*, *gossypinous*, *lanate*, *etc.* **tomentum**, a covering or indumentum of tomentose hairs.

tongue-shaped, *lingulate*.

tonic (Gr. *tonos*, a tension), a medicine for imparting vigour to the stomach and so to the body; syn. *stomachic*.

toothed, *dentate*, *serrate*, *runcinate*.

top-shaped, *turbinate*.

torose (L. *torus*, a knot, swelling), cylindrical with contractions at intervals; syn. *moniliform*, *phleboidal*; cp. *strangulated*: dim. **torulose**.

torsion (L. *tortus*, twisted; from *torqueo*, I bend), a lateral twisting during development as when a ventral raphe becomes dorsal, as in Rhamnus; cp. *resupination*: **tortile**, capable of lateral twisting; wreathed or coiled; cp. *gyrate*, *circinnate*, *cirriform*, *etc.*: **tortuous tortuose** (L. *tortuosus*, full of turns), bent irregularly in different directions; cp. *anfractuose*, *flexuous*, *sinuous*.

torulose, see under *torose*.

torus (L., a round swelling or portuberance), the axis of the flower on which the floral organs are inserted; syn. *receptacle*, *thalamus*.

tow-like, *stupose*.

trabeculæ (L. *trabs*, a beam; dim. *trabecula*, pl. *-æ*), folds or ridges on the inner face of a cell-wall; thread-like cells crossing intercellular spaces: **trabeculate**, with cross bars.

tracheæ (Gr. *tracheia*, the windpipe), spiral vessels, long, pointed, and lignified, occurring in wood: **tracheid** (Gr. *eidos*, likeness), vessels that have ceased to hold sap and protoplasm and serve only as air-conducting tubes: **trachenchyma** (Gr. *engchuma*, an infusion), tissue composed of spiral vessels.

trachy- (Gr. *trachus*, rough), prefix.

trachycarpous (Gr. *karpos*, fruit), with rough pericarp.

trachyspermous (Gr. *sperma*, seed), with rough seeds.

trailing, *procumbent*.

trajectile (L. *trans*, across; *jacio*, I throw), said of the anther when the lobes or cells are widely separated by that portion of the stamen called the connective; syn. *distractile*; cp. *divaricate*.

translucent translucid (L. *trans*, through; *lucens*, shining), allowing the transmission of light; semi-transparent; syn. *diaphanous*; cp. *hyaline*.

transparent (L. *trans*, through; *parens*, appearing), clear so as to be seen through; syn. *pellucid*; cp. *opaque*.

transpiration (L. *trans*, through; *spiro*, I breathe), the exhalation of water-vapour from foliage and other parts of plants.

transverse (L. *trans*, across; *verto*, I turn; *versus*, turned), across; from right to left in a plane at right angles to that containing bract and axis; cp. *lateral*, *collateral*, *median*: —**chorisis**, see *chorisis*: —**embryo**, see *heterotropous*: —**oblate**, sphere-like but flattened on either side, like an orange on end: —**oblong**, two or three times as broad as long and elliptical across the blunt ends.

trapezoid (Gr. *trapezion*), four-sided with only two of the sides parallel.

traumatic (Gr. *trauma*, a wound), a substance having the property of healing wounds; syn. *vulnerary*; cp. *styptic*.

tree (A. S. *treów*; Gr. *drus*, an oak), a woody plant with a distinct stem or bole; cp. *shrub*, *herb*: **tree-like**, *arboreous*, *arborescent*.

tremelloid (Gr. *tremo*, I tremble; *eidos*, likeness), jelly-like; syn. *gelatinous*.

tri- (L. *tres*; Gr. *treis*, three), prefix.

triachenium (L. *a*, not; *chaino*, I open), a cremocarp-like fruit but with three achenes; see *cremocarp*, *achene*; cp. *achænodium*.

triadelphous (Gr. *adelphos*, a brother), said of stamens when united by their filaments into three sets, bundles or phalanges; cp. *mon-*, *di-*, and *poly-adelphous*.

triandrous (Gr. *aner*, a male), with three stamens.

triangular triangulate (L. *angulus*, an angle), three-angled; syn. *trigonous*: **trianthous** (Gr. *anthos*, a flower), with three flowers.

tribe (L. *tribus*, a tribe), a group of allied genera forming one of the divisions of an order.

tribuloid (L. *tribulum*, a threshing machine; Gr. *eidos*, likeness), set about with sharp bristles; syn. *echinate*; cp. *lappaceous*.

tricarpellary (Gr. *karpos*, fruit), consisting of three carpels: **tricarpous**, consisting of three fruits or carpels.

tricephalous ((Gr. *kephale*, the head), with three heads.

tricho- (Gr. *thrix*, hair), prefix.

trichocarpous (Gr. *karpos*, fruit), with hairy fruit.

trichode trichome trichidium (Gr. *thrix*, hair; *eidos*, likeness), any outgrowth of the epidermis, such as hairs, etc., consisting of extended cellular tissue without woody fibres; cp. *prickle*.

trichotomous (Gr. *triche*, in three parts; *tomé*, a cutting), with the divisions always in threes; cp. *dichotomous*, *ditrichotomous*, *trifurcate*.

tricoccous (Gr. *kokkos*, a berry), with three *cocci*, q. v.

tricolor (L.), three-coloured.

tricostate (L. *costa*, a rib), with three principal nerves or veins diverging from the base of a leaf and running towards or to the apex; syn. *trinervate*.

tricuspidate (L. *cuspis*, a point), with three cusps or sharp points.

tridentate (L. *dens*, a tooth), thrice-toothed.

tridigitate (L. *digitis*, a finger), thrice-digitate.

triduous (L. *triduum*, a period of three days), lasting for three days.

triennial (L. *triennium*, a period of three years), lasting for three years.

trifarious (L. *trifarius*, on three sides), facing three ways; in three vertical rows; syn. *tristichous*; cp. *triseriate*.

trifid (L. *findo*, I cleave), with three parts, the divisions extending half-way or more to the base with sinuses acute; cp. *trilobed*, *tripartite*.

trifoliate (L. *folium*, a leaf), three-leaved: **trifoliolate**, with three leaflets.

trifurcate, (L. *furca*, a fork), with three branches or prongs.

trigamous (Gr. *gamos*, marriage), with three kinds of flowers, male, female, and hermaphrodite; syn. *polygamous*.

trigonous (Gr. *gonia*, an angle), three-angled, as a solid in cross-section or a plane; syn. *triangular*; cp. *triquetrous*.

trigynous (Gr. *gunḗ*, a female), with three styles or sessile stigmas.

trihilate (L. *hilum*, a small thing), with three apertures, as some grains of pollen.

trijugate (L. *jugum*, a yoke), with three pairs of leaflets or pinnæ; cp. *terconjugate*.

trilamellar (L. *lamella*, a thin scale or plate), with three flat plate-like divisions, as some stigmas.

trilobate trilobed (Gr. *lobos*, the lobe of the ear), with three rounded parts or lobes, the divisions extending not more than half-way to the base; cp. *trifid*, *tripartite*.

trilocular (L. *loculus*, a little place), three-celled.

trimerous (Gr. *meros*, a part), with three parts; said of the flower when there are three parts or members in each whorl; cp. *ternary*.

trimestris (L.), three months old: **trimestrial** (L. *trimestria*), said of crops that ripen three months after sowing.

trimorphous trimorphic (Gr. *morphḗ*, shape), having three kinds of hemaphrodite flowers produced by the same species, as in Pontederia, etc: **trimorphism**, the condition of being trimorphous; this is heterogonous when the petals are similar but the stamens and pistil reciprocally different in length, as in Lythrum, Salicaria, some species of Oxalis, etc.; cp. *dimorphous*, *heteromorphic*.

trinervate trinerved (L. *nervus*, a nerve), three-nerved from the base of the leaf; syn. *tricostate*; cp. *triplinerved*.

trini (L.), in threes.

trinodal (L. *nodus*, a knot), with three nodes.

trioecious trioicous (Gr. *oikos*, a house), bearing male flowers on one, female flowers on another and hermaphrodite flowers on a third plant of the same species; cp. *monœcious*, *dioecious*.

triovulate (L. *ovulum*, a little egg), with three ovules.

tripartible (L. *pars*, a part), tending to split up into three parts: **tripartite**, with three parts or segments the divisions extending nearly to the base; cp. *trilobate*, *trifid*.

triphyllous (Gr. *phúllon*, a leaf), with the perianth consisting of three distinct leaves.

tripinnate (L. *pinna*, a feather), thrice pinnate; said of a compound leaf when pinnate, the leaflets or pinnæ also pinnate, and the ultimate leaflets or pinnulæ also pinnate; cp. *pinnate*, *bipinnate*, *decompound*, *triternate*: **tripinnatifid** (L. *findo*, I cleave), thrice-pinnatifid.

triplicostate (L. *triplex*, three-fold; *costa*, a rib), **triplinerved** (L. *nervus*, a nerve), with a strong vein or secondary rib on either side the midrib proceeding from above the base; cp. *tricostate*, *trinerved*.

tripterous (Gr. *pteron*, a wing), three-winged.

triquetrous (L. *triquetrus*, with three corners), three-angled with the edges or faces concave rendering the angles projecting or salient; cp. *trigonous*, *amphicœlous*.

triquinate (L. *quinque*, five), with three divisions, each divided into five.

trisected (L. *seco*, I cut), completely divided into three parts.

trisepalous (Gr. *sepalon*, a sepal), with three distinct sepals.

triserial triseriate (L. *series*, a succession), in three ranks or series transverse or lengthwise, usually the former; cp. *trifarious*.

tristachyous (Gr. *stachus*, a spike), bearing three spikes or clusters of sessile flowers on simple elongated axes.

tristichous (Gr. *stichos*, a row), in three vertical rows; syn. *trifarious*; cp. *triseriate*.

tristigmatic (Gr. *stigma*, a mark), with three stigmas.

tristis (L., sad), a specific term given to some plants which expand their flowers at night only; see *nyctanthous*.

tristylous (L. *stilus*, a stake), with three distinct styles.

trisulcate (L. *sulcus*, a furrow), with three grooves more or less parallel.

triternate (L. *terni*, three together), three times ternately divided, the last division with three leaflets either ternate or pinnate; cp. *tripinnate*.

triticum (L.) wheat.

trivial (L. *trivialis*, common), ordinary, unimportant: **—name**, the second name of a species distinguishing it from other species of the same genus; syn. *cognomen*, *specific name*.

trochlear (L. *trochlea*, a block with one or more pulleys), pulley-shaped.

trophosperm (Gr. *trophos*, supporting; *sperma*, a seed), see *placenta*.

tropical (Gr. *tropikos*, relating to a turning; from *trepo*, I turn), relating to that portion of the earth's surface known as the tropics or *torrid zone* extending from lat. 23° 28′ N. to lat. 23° 28′ S. of the Equator; growing from sea-level up to an altitude of about 3,000 feet in the tropics; cp. *sub-tropical, temperate, alpine*.

trumpet-shaped, *tubæform, lituate*.

truncate (L. *trunco*, I shorten by cutting off), ending abruptly, as if with the end cut off; cp. *succise, præmorse*.

trunk (L. *truncus*, a stem), the principal axis or main stem of a tree; syn. *bole*.

truss (Fr. *trousser*, to pluck up), a word used by gardeners for "umbel," and sometimes vaguely, like the word "spike," for any kind of inflorescence.

tryma (Gr. *truma*, an opening), a drupaceous nut with a fleshy exocarp opening at maturity, as the walnut.

tubæform (L. *tuba*, a straight trumpet; *forma*, shape), trumpet-shaped; straight and tubular with expanded mouth; cp. *lituate, urceolate*.

tube (L. *tubus*, a pipe), any hollow cylindrical or pipe-like part or body (cp. *column*); the lower cylindrical portion of some gamopetalous corollas (cp. *limb*): **tubular**, hollow cylindrical; cp. *farctous, urceolate*: —**corolla**, one the whole or greater part of which forms a tube: **tubiform** (L. *forma*, shape), pipe-shaped.

tuber (L. *tuber*; dim. *tuberculum*, an excrescence; from *tumeo*, I swell), the thickened portion of an underground stem, as the potato; cp. *corm, bulb*: **tubercle**, a wart-like excrescence; a tuber-like root bearing adventitious buds at the upper end, as in the sweet potato (Batatas edulis): adj. **tubercled**: **tuberiferous** (L. *fero*, I bear), bearing tubers: **tuberose tuberous**, tuber-like, swollen, as parts of the root or stem; see *tumid*: **tubercular tuberculose**, having swollen excrescences; cp. *phymatodeous*: **tuberculate**, covered with wart-like excrescences; syn. *verrucose*; cp. *muricate*.

tubular, see under *tube*.

tubulifloral (L. *tubulus*, a little tube; *flos*, a flower), having all the florets of an anthodium with tubular corollas, as in some Compositæ; cp. *labiatiflorœ, liguliflorœ*.

tufted, *cæspitose*; see also *aspergilliform, comose, crinite, stupose*.

tuitant (L. *tueor*, I protect), said of leaves that fold back on the stem during sleep, *i.e.*, at night or during darkness; cp. *nyctitropic*.

tumid tumefied (L. *tumeo*, I swell; *facio*, I make), swollen; syn. *distended, inflated, turgid*; cp. *ventricose, gibbose*: **tumescent**, becoming swollen; syn. *turgescent*.

tunicate tunicated (L. *tunica*, an undergarment; a membrane), having coats; covered with large closely-investing fleshy scales forming complete sheaths, as the bulb of the onion; cp. *scaly bulb*.

turbinate (L. *turbo*, a top), top-shaped; like an inverted cone; cp. *nuciform, napiform, fusiform*.

turfaceous turfose (It. *torba*, a lump), growing in bogs; syn. *uliginose*.

turgid (L. *turgeo*, I swell), swollen; syn. *tumid*: **turgescent**, becoming swollen; syn. *tumescent*.

turio turion (L. *turio*, a shoot), a scaly shoot sent up by the underground stem of some perennial herbs, as in Asparagus; the scaly bud that develops into a sucker: **turioniferous** (L. *fero*, I bear), producing scaly suckers.

turnip-shaped, *napiform*.

tutsan or **St. John's wort family**, Hypericineæ.

twiggy, *virgate*.

twin (A.S. *twi*, two), in pairs; see *geminate, conjugate, etc.*

twining, climbing by winding or twisting spirally around a stem or support; syn. *voluble*: n. **twiner**; cp. *climber*.

twisted, see *convolute*: —**to the right**, *dextrorse*: —**to the left**, *sinistrorse*.

two-lipped, *bilabiate*.

type (Gr. *tupos*, a figure), an ideal figure or plan; —**species** or—**genus**, one bearing in a marked degree the characteristics of the natural order to which it belongs: adj. **typical**.

U

uliginose (L. *uligo*, moisture), growing in swamps or wet places; syn. *turfose*; cp. *paludose, salsuginose*.

ulnar (L. *ulna*, the large bone of the forearm), about one cubit (eighteen inches) in length.

54604

ultimate (L. *ultimus*, most distant), last, outermost; cp. *primary*, *secondary*: **ultimately**, at length; in course of final development.

umbel (L. *umbra*, a shade; dim. *umbella*), a botryose or indeterminate form of inflorescence in which the pedicels of the flowers radiate from the top of a common peduncle and are of nearly the same length; syn. *sertulum*; cp. *raceme*, *corymb*, *etc.*; see *truss*: **umbellate**, producing several nearly equal rays or branches from the same point: **umbellet umbellule**, a partial or secondary umbel; see *compound umbel*: **umbelliferous** (L. *fero*, I bear), bearing umbels: **umbellate family**, Umbelliferæ.

umber (It. *Umbria*, name of a district), dark brown earth: **umbrine**, umber or snuff-coloured; cp. *auburn*, *vaccinous*.

umbilicus (L., the navel), see *hilum*: **umbilical cord**, see *funicle*: **umbilicate**, navel-like, depressed in the centre; syn. *omphaloid*.

umbonate (L. *umbo*, a boss), bearing a boss or conical or rounded protuberance on the surface; cp. *apophysate*, *mammose*: dim. **umbonulate**.

umbraculiform (L. *umbraculum*, a parasol; *forma*, shape), umbrella-shaped; see *sciados*.

umbrageous (L. *umbra*, a shade), yielding much shade: **umbrosus**, growing in shady places.

umbrine, see *umber*.

unarmed, without spines, prickles or other defensive appendages; syn. *inermis*.

uncate uncinate unciform (L. *uncus*, a hook; *forma*, shape), hook-shaped or recurved at tip; syn. *aduncate*, *hamate*; cp. *acronychious*, *glochidiate*.

uncia (L., an inch), an inch long; cp. *unguis*, *line*: adj. **uncial**.

unctuose (L. *unctus*, anointed, from *ungo*, I salve), greasy to the touch; cp. *oleaginous*, *lubricous*, *lævigate*.

undate undulate undulated (L. *unda*, a wave), with wavy margin; syn. *repand*, *sinuous*; cp. *sinuate*.

underground, *subterranean*, *hypogæous*.

underlayer, *subiculum*.

undershrub, a low shrub; syn. *suffrutex*.

undulate, see under *undate*.

unequal (L. *inæqualis*, unlike), said of a leaf, or base of a leaf, with the parts of the blade on either side the midrib unlike in form, as in Begonia; syn. *inæquilateral*: **unequally-pinnate**, see *imparipinnate*.

unguiculate (L. *unguis*, a claw), said of a petal the base of which is narrowed and stalk-like; syn. *clawed*: **unguis**, the narrowed base of certain petals, as in the mustard flower (syn. *claw*; cp. *lamina*); a length of ⅛ an inch (cp. *uncia*).

uni- (L. *unus*, one), prefix.

uniangulate (L. *angulus*, an angle), said of a stem with projecting ridge or angle on one side only.

unicellular (L. *cella*, a room), one-celled; cp. *unilocular*.

unicolorous (L. *color*, a colour), with an uniform tint or colour; cp. *discolorous*.

unicostate (L. *costa*, a rib), with but one strong nerve (the costa or midrib) in the blade of the leaf; cp. *costate*.

unicus (L.), singly; solitary.

uniflorous (L. *flos*, a flower), bearing or subtending a single flower.

unifoliate (L. *folium*, dim. *foliolum*, a leaf), with one leaf: **unifoliolate**, with one leaflet, the compound nature of the leaf being indicated by an articulation between petiole and blade.

unijugate (L. *jugum*, a yoke), said of a compound leaf with only one pair of leaflets or pinnæ; cp. *bi-*, *pluri-jugate*.

unilabiate (L. *labium*, a lip), said of a normally two-lipped corolla when only one lip is developed, the other aborted, as in Acanthus; cp. *bilabiate*.

unilateral (L. *latus*, a side), arranged on one side of the axis; all turned to one side of the axis (syn. *secund*), cp. *bilateral*.

unilocular (L. *loculus*, a little place), one-celled, as an ovary; with one sac, lobe or cell, as some anthers; syn. *monolocular*, *monocystic*; cp. *unicellular*, *monothecous*.

uninervate, see *unicostate*.

uniovulate (L. *ovulum*, a little egg), containing one ovule only.

uniparous (L. *pario*, I produce), said of an inflorescence the main axis of which has, near the apex which bears a flower, one or two bracts from the axil of only one of which a lateral branch, terminated by a flower, proceeds, this and each successive

axis flowering and branching similarly, the whole forming a cymose cluster; see *monochasium, bostryx, cincinnus*; cp. *biparous.*

unique (L. *unicus*, sole), singular, alone of its kind.

uniserial uniseriate (L. *series*, a row), in one row transverse or lengthwise, ordinarily the former.

unisexual 1-sex. (L. *sexus*, a gender), having the stamens in one and the pistil in another flower; syn. *diclinous, separated*; cp. *bisexual*; see *monœcious.*

univalved univalvular (L. *valvæ*, folding doors), consisting of a single piece or valve.

unlining (L. *linea*, a line), said of parts originally united but separating during development.

unsymmetrical, *anisomerous.*

upper, see *superior.*

urceolate (L. *urceus*, a pitcher; dim. *urceolus*), urn-shaped; tubular, contracted at or below the mouth, and expanded into a narrow rim; see *tubular*; cp. *tubæform.*

urens (L. *uro*, I burn), stinging; see *stimulose.*

ustulate (L. *ustus*, burnt; from *uro*, I burn), blackened as if scorched; syn. *deustate*: cp. *præustate.*

utricle (L. *uterus*, the womb; dim. *utriculus*), a bladder-shaped body; an old term for a cell in parenchyma; a one-celled one-seeded fruit with a thin, somewhat loose, pericarp often dehiscing transversely like a pyxis; cp. *vesicle, nut, achene*: **utricular utriculate utriculiform** (L. *forma*, shape), bearing or consisting of utricles; bladder-like; cp. *ampullaceous, ventricose, amphispermous*: **utriculose,** bearing utricles; bearing air-bladders, like the aquatic plant Utricularia.

uviform (L. *uva*, a bunch of grapes; *forma*, shape), like a bunch of grapes.

V

vacant (L. *vacuus*, void), empty; without contents usually present, as an ovary without ovules.

vaccarious (L. *vacca*, a cow), having the property of increasing the flow of milk from the cow: **vaccinous,** of a dun colour, dark reddish-brown; cp. *umbrine.*

vacillans (L. *vacillo*, to wave to and fro), see *versatile.*

vacuole (L. *vacuum*, an empty place; dim. *vacuolum*), a cavity in the protoplasm of cells containing cell-sap.

vagiform (L. *vagus*, wandering; *forma*, shape), with a form not well-defined: **vaginerved** (L. *nervus*, a nerve), with nerves irregularly disposed, as in some succulent leaves.

vagina (L., a sheath), sheathing portion of a leaf-base; see *ochrea, spathe*: **vaginula vaginella,** a small sheath: **vaginate,** sheathed; cp. *ochreate.*

vague (L. *vagus*, wandering), said of the radicle when pointing neither towards the apex nor towards the base of the ovule, as in amphitropous ovules; syn. *heterotropous, peritropous, centrifugal, transverse.*

valleculæ (L., little valleys), a term for the depressions between the ridges of a cremocarp, as in the fruit of Umbelliferæ.

valve (L., *valvæ*, folding doors), one of the distinct portions into which a pericarp splits when ripe for the whole or part of its length along the lines that correspond to the sutures; the small flap-like part of some anthers that rises to allow the escape of the pollen, as in Laurineæ: **valvate valvular,** dehiscing by means of valves, as most capsules (see *dehiscence*); with the margins of members of a whorl exactly meeting, not overlapping (cp. *imbricate*): **valved,** furnished with, or opening by means of, a valve: **valvula,** a name for the flowering glume of a grass.

varicose (L. *varix*, a dilated vein), irregularly swollen at intervals; cp. *phleboidal.*

variegated (L. *varie*, with various colours; *ago*, I construct), with patches of different colour; cp. *discolorous, parti-, versi-coloured.*

variety (L. *varietas*, difference; from *varius*, diverse), a group of plants differing in certain minor particulars from other plants of the same species; see *race*: **varifolious** (L. *folium*, a leaf), having leaves of different forms; syn. *heterophyllous*: **various,** occurring in more than one form; cp. *versiform*: **varying,** said of a colour changing from one tint to another; syn. *versicolorous.*

variolate (L. *vario*, I change), marked by small pits like those of small-pox; cp. *foveate, etc.*

vascular (L. *vas*, a vessel; dim. *vasculum*), relating to or composed of vessels; cp. *cellular*: —**bundle**, a strand of tissue consisting of soft cells (phlœum) within woody tissue (xylem): —**tissue**, *angienchyma*, *prosenchyma*: **vasculiform** (L. *forma*, shape), pitcher-shaped: **vasculum**, a pitcher-shaped leaf; syn. *ascidium*: **vase-shaped**, *amphoric*: **vasiduct** (L. *duco*, I lead), a term for *raphe*: **vasiform** (L. *forma*, shape), in the form of a vessel or duct.

vaulted (It. *volta*, an arched roof), concave overhead; overarching; syn. *fornicate*; cp. *calyptrate*, *cucullate*.

vegetable (It. *vegetare*, to grow; L. *vegeo*, I quicken), pertaining to, or of the nature of, plants; an esculent plant grown in a prepared plot of ground; any part of the same dressed or cooked before use: — **anatomy**, *histology*: —**kingdom**, one of the three grand divisions of Nature including all plants, the other divisions being the Animal and Mineral Kingdoms: —**pathology**, *nosology*: **vegetation**, plant-growth; see *organ*.

veil-like, *cortinate*; see *velate*.

vein (L. *vena*, a blood-vessel), a thread of fibro-vascular tissue in a leaf or any lamina or flat organ, proceeding from the ribs or nerves and branching; syn. *nervule*; cp. *nerve*: **venation**, the mode of veining of a leaf; cp. *nervation*: **veined**, traversed by veins, especially when these are branched forming a network; see *parallel*, *reticulate*; cp. *nerved*: **veinlet venule**, one of the ramifications of a vein: **veinless**, without veins; syn. *avenous*: **venose**, full of veins: **venoso-striate**, marked with vein-like lines: **venulose**, full of veinlets: **venuloso-nervose**, with straight parallel nerves connected by cross-veinlets.

velate (L. *velum*, a curtain), covered as by a veil; cp. *cortinate*.

velumen (L., a fleece), a covering of close soft silky hairs; cp. *indumentum*, *integument*.

velutinous (L. *vellus*, a fleece), velvety; densely covered with soft short silky straight hairs; cp. *pubescent*.

venation, see under *vein*.

venenate venenose (L. *venenum*, poison), poisonous; syn. *virose*.

ventral (L. *venter*, the belly), relating to or inserted on the inner angle or anterior face of a carpel, that next to the axis of the flower; cp. *dorsal*; see *sutural placentation*: — **raphe**, that turned to the placental axis or ventral suture; syn. *adverse-raphe*.

ventricose (L. *venter*, the belly; dim. *ventriculus*), bulging or swollen on one side; unequally swollen; cp. *gibbous*, *utriculate*, *etc.*: **ventriculose**, somewhat ventricose.

venule, see under *vein*.

venustus (L.), beautiful.

verdant (L. *viridis*, green), green like foliage leaves; see *virens*, *viridulose*: **verdure**, green vegetation.

vermicular vermiculate vermiform (L. *vermis*, a worm; dim. *vermiculus*; *forma*, shape), worm-shaped; syn. *helminthoid*: **vermifuge** (L. *fugeo*, I flee from), a medicine for expelling worms from the intestines; syn. *anthelmintic*.

vernal (L. *vernalis*), pertaining to or appearing in Spring; cp. *æstival*, *hiemal*.

vernation (L. *ver*, spring), the mode in which the parts of a leaf are arranged in the bud; syn. *præfoliation*; cp. *æstivation*.

vernicose (It. *vernice*, varnish), as if varnished; syn. *laccate*; cp. *lævigate*, *phymatodeous*, *etc.*

verrucose (L. *verruca*, a wart), covered with wart-like excrescences; syn. *tuberculate*; cp. *tuberculose*, *carunculate*, *phymatodeous*: **verruculæ**, little warts.

versatile (L. *versatilis*, turning hither and thither; from *verto*, I turn), turning or swinging readily on its support; said of anthers attached by a point of the back to the apex of the filament and so swinging freely, as in grasses, etc.; syn. *vacillans*, *oscillatorial*; cp. *mobile*, *medifixed*.

versicolorous versicoloured (L. *versus*, turned; *color*, colour), of many tints or colours (cp. *variegated*, *particoloured*, *concolorous*, *etc.*); changing colour; of different tint or colour when viewed from different positions.

versiform (L. *versus*, turned; *forma*, shape), changing shape with age; cp. *varifolious*, *various*.

versipalmate (L. *versus*, turned; *palma*, the hand), palmate, but with the segments not all in the same plane.

vertebrate (L. *vertebra*, a joint), distinctly articulated with slight contractions at regular intervals.

vertex (L.), the top or crown of the head, the top or summit of any part; syn., *apex*: **vertical**, standing upright (syn., *erect*); longitudinal; perpendicular to the horizontal plane: —**chorisis**, see *chorisis*.

verticil (L. *verticillus*, the whorl of a spindle), a circle of organs in the transverse plane around an axis; syn. *whorl*; cp. *cycle*, *helix*: **verticillaster** (L. *aster*, a diminutive postfix), a false verticil formed by a pair of sessile or subsessile cymes which proceed from the axils of opposite leaves, and appear to form a whorl of flowers round the stem, as in many Labiatæ: adj. **verticillastrate**: **verticillate**, arranged in a whorl: —**leaves**, with more than two at a node; cp. *alternate*, *opposite*: **verticillate-pinnatisect**, said of sessile leaves or scales pinnately divided into filiform segments and appearing like a number of small verticillate leaves **verticilliflorous** (L. *flos*, a flower), with sessile flowers arranged in whorls on an elongated axis; cp. *spike*.

veruculate (L. *veru*, a javelin), cylindrical and somewhat pointed at apex.

vesicant (L. *vesica*, a bladder), a substance having the property of raising blisters on the skin; adj. **vesicatory**.

vesicle (L. *vesicula*, a little bladder on plants), a small bladder-like cavity; cp. *utricle*: **vesicular** **vesiculate** **vesiculose**, bearing or composed of little bladders usually filled with air; cp. *utriculose*.

vespertine (L. *vesper*, the evening), opening only in the evening, as certain flowers; cp. *matuline*, *memnonious*, *pomeridian*.

vessel (L. *vasculum*, a small vessel), a tube in vegetable tissue formed by a vertical row of cells, the separating partitions of which have become wholly or partially obliterated, and the wall then usually thickened and marked with lines or dots; syn. *duct*; cp. *cell*, *spiral vessel*.

vestige (L. *vestigium*, a trace or footprint), a term for *rudiment*.

vestiture (L. *vestio*, I clothe), see *integument*.

vexillum (L., a banner), see *standard*.

vibratile (L. *vibro*, I shake), moving to and fro; quivering; cp. *versatile*, *etc.*

viceni (L.), in twenties.

villose **villous** (L. *villus*, shaggy hair), covered with long soft hairs, not short as in pubescence, nor interwoven as in tomentum; syn. *shaggy*; cp. *pilose*; see *hairy*.

vimineous (L. *vimen*, a pliant twig), with long flexible twigs; cp. *flagellate*, *virgate*.

vine (L. *vinum*, the grape), the grapevine plant (Vitis vinifera); any climbing or trailing plant, as the hop; see *climber*: —**family**, Ampelideæ: **vineal**, growing in a vineyard: **vinose**, of the colour of red wine, pale red with grey.

violaceous (L. *viola*, the violet), belonging to the violet family (Violaceæ); of a violet colour, blue with a tinge of red (syn. *amethystine*, *ianthine*): **violascent**, pale violet.

virens (L.), green (syn. *verdant*); evergreen (syn. *sempervirens*): **virescence**, the production of green colouring matter (chlorophyll) in petals usually coloured: **virescent** **viridescent**, greenish, turning green: **viridulous** (L. *viridis*, green), somewhat green: **viror**, greenness.

virgate (L. *virga*, a thin green twig), long, slender, erect and scarcely branched; syn. *twiggy*; cp. *vimineous*.

virgultum (L., from *vergula*, a small twig), a slip for planting (syn. *cutting*, *talea*); a strong twig or shoot; a thicket or brushwood (syn. *copse*).

virose (L. *virus*, poison), poisonous; syn. *venenose*.

viscid **viscous** (L. *viscidus*, sticky; from *viscum*, the mistletoe), coated with a sticky secretion; syn. *glutinous*; cp. *mucilaginous*.

vitelline (L., *vitellus*, the yoke of an egg), the colour of the yoke of an egg, orange-yellow with a little grey: **vitellus**, see *embryo-sac*.

viticula (L., a little vine), a vine-like trailing stem or sucker; syn. *sarmentum*; cp. *surculus*: **viticulose**, producing long slender trailing branches or runners, like the cucumber; syn. *sarmentose*, *flagellate*.

vitreous (L. *vitrum*, glass), glass-like, transparent; syn. *hyaline*.

vittæ (L. *vitta*, a ribbon, band), the longitudinal oil-bearing canals in the fruit (cremocarp) of Umbelliferæ between the pericarp and albumen: **vittate** bearing vittæ; with bands or stripes lengthwise; cp. *striate*, *lirellate*.

vivid (L. *vividus*, vigorous; from *vivo*, I live), brilliant; cp. *insipid*; as to colour.

viviparous (L. *vivus*, alive; *pario*, I produce), reproducing by buds which root and form young plants while still attached to the parent tree; cp. *gemmiparous*, *proliferous*, *fissiparous*.

void (F. *vuide*, empty), see *vacant*.

volatile (L. *volatilis*, winged; from *volare*, to fly), readily passing from a liquid to a gaseous or air-like condition; see *ethereal*.

voluble volubile (L. *volubilis*, a revolving; from *volvo*, I roll), turning spirally around a support.

volute (L. *voluto*, I roll round), rolled up in any direction; cp. *involute*, *revolute*, *etc.*

vulnerary (L. *vulnus*, a wound), having the property of healing wounds; syn. *traumatic*.

W

walnut family, Juglandeæ.

warty, *verrucose*.

waterlily and lotus family, Nymphæaceæ.

water-pepper family, Elatineæ.

waterwort family, Philydraceæ.

wavy, *undulate*, *sinuous*.

wax-bearing, *ceriferous*: **waxy**, *cerasecous*.

web; *tela*: **web-like**, *byssoid*, *cortinate*.

wedge-shaped, *cuneate*, *sphenoid*.

weldwort or mignonette family, Resedaceæ.

wen-like, *strumiform*.

wheel-shaped, *rotate*.

whip-like, *flagelliform*.

whorl, see *verticil*: **whorled**, *verticillate*.

wild, growing naturally without culture; see *escape*; cp, *sativus*.

willow family, Salicineæ.

wilt, to wither: adj. **wilted**.

wings, any broad thin appendages; the portions of a decurrent leaf that form thin projections along the stem; the side petals of a papilionaceous corolla (see *alæ*, *talaria*): adj. **winged**: —**fruit**, —**seed**, *pteridium*; see *samara*.

wiry, with tough and pliant stems.

witch-hazel wych-hazel, a species of elm: —**family**, Hamamelideæ.

withering, see *marcescent*, *tabescent*: **withered**, *wilted*, *emarcidate*.

wood (A.S. *wudu*), a number of trees growing together in a limited space (cp. *forest*); that part of a woody plant below the bark (see *alburnum*, *duramen*): **wooded**, covered with trees; see *woody*: **woody**, covered with trees (syn. *wooded*); of woody texture (syn. *ligneous*, *xyline*): —**plant**, one containing more fibro-vascular than cellular tissue; see *tree*, *etc*: —**tissue**, *prosenchyma*, *xylem*.

woolly, *lanate*, *eriophorous*.

worm-shaped, *helminthoid*, *vermiform*.

wort (A.S. *wyrt*, barley), any plant; now used only as a postfix, as Birthwort, Spleenwort.

wrinkled, *rugose*.

wych-hazel, see *witch-hazel*.

X

xanthic (Gr. *xanthos*, yellow), yellow: **xanthine xanthopyll** (Gr. *phullon*, a leaf), the yellow colouring matter of plants; cp. *chlorophyll*, *erythrophyll*: **xanthophyllous**, yellow-leaved.

xenogamy (Gr. *xenos*, foreign; *gamos*, marriage), the fecundation of a flower by the pollen of the flower of some other plant of the same species; a kind of *allogamy*; cp. *geitonogamy*.

xerampeline (Gr. *xeros*, dry; *ampelos*, a vine), of the colour of raisins, dull reddish brown.

xerophilous (Gr. *xeros*, dry; *philos*, loved), said of plants that grow naturally in dry hot places.

xiphoid (Gr. *xiphos*, a sword; *eidos*, likeness), sword-shaped; syn. *ensiform*: **xiphophyllous** (Gr. *phullon*, a leaf), with sword-shaped leaves.

xylocarpous (Gr. *xulon*, wood; *karpos*, fruit), bearing fruit that becomes hard and woody: **xylem**, woody tissue (syn. *prosenchyma*); the fibrous inner bark of certain species, as the flax-plant (Linum usitatissimum): **xylodium** (Gr. *duo*, I put on), a term for *achene*: **xyline**, *woody*.

Y

yam family, Dioscoreaceæ.

Z

zeylanicus, indigenous to Ceylon.

zonate (L. *zona*, a girdle), with the colour in bands.

zoophilous (Gr. *zoon*, an animal ; *philos*, loved), fertilised or fecundated by the agency of animals ; cp. *entomophilous*.

zygomorphous (Gr. *zugon*, a yoke ; *morphe*, shape), capable of being bisected into similar halves by only one plane ; cp. *actinomorphous*.

G. I. C. P. O.—No. 203 R. & A.—9-6-99.—1,000.—E. Rose.

00054604

Digitized with financial assistance from

Hemendra Kothari

on 06 November, 2019